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THE EXEMPTION OF PRIVATE PROPERTY UPON THE SEA FROM CAPTURE.

A Paper read by Rev. Dr. Woolsey, of New Haven, Ct., Tuesday Evening, May, 19, 1874.

The old rules of war were based on two principles, *one of which was, That every individual of one of the conflicting parties was an enemy to every individual of the other*, and *the second, That it was right to use all ways of distressing the enemy in order to bring him to a sense of justice.* During the operation of these rules, the people of an invaded territory could be stripped of their property, and dragged into slavery, which indeed was chiefly nourished and kept up by this means. All property, public or private, which fell into the enemy's hands, was his by the right of capture. The right of conquest, also, destroyed political connections, aggrandized winning nations, and led to the construction of vast empires.

It may be said that the rose-water philanthropy of modern times would multiply wars by making them less of an evil. If people do wrong, and suffer for it, they will remember the lesson that suffering has taught. But these friends of the antique usage, —

> "The good old plan
> That they should get who have the power,
> And they should keep who can," —

forget several things. They forget that war was more frequent in the times when it was more rigorous in its rules, more unrelenting in its inflictions of evil on the innocent members of political societies. They do not take into account the stings which savage treatment, plunder, and conquest leave for ages in the mind of a humbled nation; nor do they estimate aright the motive of personal enrichment which led to or was suggested by the wars of old — how, for instance, the great Roman families and generals augmented their wealth by successful campaigns; and how an aristocracy of wealth was created by means of spoils in war, and by opportunities of office in the provinces, more than by all other means put together.

The old rules of war applied equally to operations on the land and on the sea. But for long ages marine warfare was of very secondary importance, and had no influence in modifying the rules of international conflicts.

In modern times, since the effects of a Christian civilization have become more decided, and intercourse between nations, growing closer, has increased a sense of brotherhood, the rules of warfare on land have become more humane. It is even possible now for an invading army to march across the territory of its foe without disturbing in his possessions or depriving of his liberty a single cultivator of the soil; and for the most part, although under the name of requisitions severe taxes are laid on unoffending subjects of a hostile power, all seizures of private goods, except for necessary purposes, are strictly prohibited. In the "Instructions for the Government of Armies of the United States in the Field," prepared by Dr. Lieber, and adopted in 1863, we read in article 63 that "the United States acknowledge and protect, in countries occupied by them, religion and morality, strictly private property, the persons of the inhabitants, especially those of women, and the sacredness of domestic relations. Offenses to the contrary," it is added, "shall be strictly punished." And again, in article 38, it is said that "private property, unless forfeited by crimes, or by offenses of the owner, can be seized only by way of military necessity for the support or other benefit of the army of the United States. If the owner has not fled, the commanding officer will cause receipts to be given, which may serve the spoliated owner to obtain indemnity."

Capture on the sea, however, did not feel the genial breath of humanity to a like extent. For this two reasons may be given; the first is, that in truth little harm to persons was done on the sea by the rigorous old-fashioned rules of war on this element; no families were broken up, no freemen reduced to slavery, nobody directly injured but able-bodied sailors, shippers, and merchants. Goods were taken, losses, it might be great in amount, were caused by capture, multitudes were cut off from their wonted comforts and luxuries; and by capture, as well as by increase of risk, prices of transported articles were raised. But it was necessary to distress the enemy, and gainful to offer an inducement to captors sufficient for stimulating regular cruisers to be industrious in their work, and for leading owners of private vessels to convert them into privateers.

We have come to a place where it may be well to say a word on the kinds of vessels employed in making captures during the earlier wars of modern Europe. The suzerain and the feudal lords along the coasts seem to have had originally few or no war vessels, and so a navy had to be extemporized for each new occasion. The ships collected for the expeditions of this period were chiefly intended for transport, as from England to Northern France, or from Venice and Genoa to the Holy Land. A merchant vessel could be used easily with slight alterations or additions for the purpose of boarding or of defense. One way of ob-

taining vessels was the process of impressment, the exercise of the *jus angariæ*, as it was called, a practice answering to the feudal usage of purveyance, by which any ship, domestic or foreign, was put in requisition for an expedition across the sea on promise of compensation for service rendered. Or the vessels might be owned and manned by private persons, but paid for by the suzerain. Or they might belong to the suzerain or state, with a crew and an outfit provided for by private persons. Or, again, private vessels were officered and sent to sea at the charges and risk of private persons under a commission from the Government. Or, finally, public vessels were sent to sea commanded by officers in the service of the state, and with a public crew. Only the two last, privateers and public armed vessels, remained until down to the middle of this century. But not only while the other methods of obtaining armed ships were in vogue, but since also, rewards have been held out to officers and crews for captures of enemies' vessels. Nothing else could have turned merchant ships into armed cruisers but this uncertain hope of a reward. It was gambling. The cruiser might not only fail of finding a foe on the sea or be repulsed, but might be destroyed by the enemy. Still it had the excitement of gambling, and it opened a new business to ships and sailors otherwise unemployed, so that the most mercantile nations would have the most privateers afloat.

The laws of nations, meanwhile, fluctuated as to what property should be liable to capture, and on what vessels. In general, however, we may say that the English rule, if it may be so called, prevailed — that free ships do not make free goods, or that enemies' goods on neutral ships are liable to capture, and that neutral goods on hostile ships are not liable to capture. The latter rule was of little practical importance, but the former was of vast importance. Accordingly nations which had small navies, and such as were generally neutral, strove to have "free ships, free goods" made a rule of international law. Our Government was for free ships *making goods free*, but our Supreme Court, and such men as Chancellor Kent, were for the opposite. And it must be confessed, I think, that if we take only justice into view, they were right. But however this may be, England sturdily opposed the rule of "free ships, free goods," and for long it had no international sanction.

THE RULES OF 1856.

Such was the state of things when in 1856 the parties to the Declaration of Paris agreed that privateering should be and remain abolished, and that enemy's goods on neutral vessels should not be liable to capture. These two rules, with the two others of less importance, because already generally admitted, that neutral goods on hostile ships are safe, and that there can be henceforth no paper blockades, brought changes

of the highest moment into international law. They were accepted, as a whole, by the signataries of the treaty, and offered to other states on the same condition. All the states of the civilized world have given their adhesion to the declaration in its entirety, but Spain, Mexico, and the United States. Three of the rules were just what the United States had always wished to have established. But Mr. Marcy, the Secretary of State, refused, on the part of the Government, its adhesion on account of the rule making privateering unlawful. It was our policy, he said, to keep on foot a small navy, and so we had need in war, if we would cope with superior naval powers, to improvise an addition to our means of attack and defense by calling in the aid of privateers. He, however, offered the consent of the Government to a rule exempting all private property and vessels employed in innocent trade from the operations of war, which offer was not accepted by Great Britain, and was not long afterward withdrawn.

Mr. Marcy's reasons for withdrawing the adhesion of the United States to the four rules appear to me to have been inconsistent with the former action of the United States, ill-advised, and frivolous. As early as 1785, the celebrated treaty with Prussia, carrying out the views of Dr. Franklin, put a stop to privateering between the parties as long as the provision with that object in view lasted. And not only Franklin, but our leading publicists, Kent and Wheaton, spoke in decisive terms against giving commissions to private vessels. By the rules we should have secured great carrying business in foreign wars, and the safety of our own goods in wars of our own. What was the advantage of privateers to us compared to the evils of this loss? Our vessels on the sea were likely to multiply perhaps tenfold in half a century. Losing the benefits of the rule, we exposed this increasing commerce to the depredations of the private armed cruisers of all who put their names to the declaration, for the obligations it contained were only reciprocal. Still further, to have adhered to the declaration would have been the best step to secure what our Government claimed to desire; for, practically, the liability of enemy's goods to capture, under the declaration, is very small; and so the objection could not have been great to the entire exemption from liability. But of this we mean to speak more at large. At present we add on this point that something would have been saved to us in the late war if the four rules had been adopted. We should have entered the war with such international obligations that the Southern Confederacy could hardly have ventured to make use of privateers against us. We made no use of them because we needed the good opinion of mankind. Thus, the reservation of this privilege, in view of some possible future conflict, seems to have been in motive not justified — in fact, unfortunate.

But the larger exemption from liability to capture, which Mr. Marcy proposed, is one very desirable in itself, and pretty sure, we think, to be carried into effect. That it is desirable, we shall endeavor to show by several considerations. First, it is clear that the only rule which needs to be added in order to attain to complete exemption is one of no great importance for the carrying on of war upon the sea. The rule now is, that enemy's ships and their goods on board of their ships are liable to capture. Formerly the belligerent right of capturing an enemy's goods was of great significance, because they could be taken on ships of any nationality, on neutral ships as well as their own. But now the exemption of an enemy's goods on neutral ships opens a way for safe transport of such goods, and takes away the chief motive for privateering, as well as for the anxious lookout of national vessels to secure prizes. If the Declaration of Paris had only settled the principle that free ships make free goods, without saying anything of privateers, things would have been very much as they are now, for the food of the privateers is, by the second rule, taken away. At the outbreak of every new war the belligerent will calculate what are the risks of his maritime commerce, and, if they are appreciable, will make a bargain with neutral merchants for the employment of their vessels, or will transfer by sale his own vessels to the neutral. In the first case, if the rate of freights demanded by neutral traders does not exceed, or slightly falls short of, the rate at home, including insurance for war risks, the neutral ships will come in like a shoal of fishes. In the other case there will be a transfer of the mercantile marine, greater or less, according to the probabilities of the length and the risks of war, to the neutral flag. This is known to have taken place very extensively in our late war.

In the three years before 1861 there were transferred to British capitalists 123 vessels, measuring 47,670 tons.

	Tonnage.
In 1861, 126 vessels of (in the aggregate)	71,673
" 1862, 135 vessels of (in the aggregate)	64,578
" 1863, 348 vessels of (in the aggregate)	252,579
" 1864, 100 vessels of (in the aggregate)	92,052

That is, in four years from the beginning of the war, until towards its close, 480,882 tons, contained in 715 vessels.

That considerable loss and suffering to individuals takes place during this process can easily be believed. But taking a country together, the evils are not so very great. There will always be some loss in the sales of vessels in such circumstances. The trade of ship-building, and others depending on it, will be crippled. But does not the evil stop here? The former ship-owner takes the proceeds of the sales and puts

them into some other form of productive industry. The war, indeed, may lower the average rate of profits, and so far as new capital comes into competition with old, there may be a further reduction; but, on the whole, those nations whose capital is not disproportionately invested in the shipping interest will not feel all this very much. It may be, indeed, that the evil of transferring vessels of commerce to another nation will have lasting effects, especially on the arts of ship-building. Of this an example will be drawn by some from what has befallen us in this respect during the years since the collapse of the Southern Confederacy. But if I may express an opinion, either the greater use of iron steamers, in the making of which we were not able under our tariff to compete with foreigners, or the general want of wisdom with which our system of duties was devised, or both, have been more potent causes of the prostration of our ship-building since the war than any change in the direction of the employment of capital, owing to the war, could be.

The bearing of what has been said is, that if it be important that belligerent rights of destruction should be retained in order to distress an enemy, and so to bring him the more speedily to a better, fairer mind, this right still existing of capturing enemies' vessels and their goods on them does not accomplish its purpose. For either it is brute thunder, because the belligerent employs neutral vessels instead of his own, or if it distresses a particular class, it does not materially affect the feelings or interests of any but exclusively commercial countries. What matters it to a farmer in Iowa if his wheat or pork is carried in British or Swedish bottoms rather than in those of the United States? If, indeed, the old rule were in force, that hostile property in neutral ships was fair prize, that would be a great matter to him. The risk of capture would, or at least might, affect prices so that it would be cheaper to carry similar products from Odessa or Dantzic than from New York; and thus, the foreign demand being cut off, his wheat would fall in value, and possibly fall for a time below cost. We conclude, then, that since the Declaration of Paris nations in general cannot be much affected by the transfer of shipping consequent upon a war, and will not be brought to a sense of justice by suffering, for the new rules have taken away the suffering. If you say that war ought to have its ravages, its losses, its deaths, then give up for the sake of justice and of international morality that rule which is the hinge of the declaration. Make hostile goods capturable in neutral vessels. Then must privateers be called again to their duty of aiding in this course of justice; and we shall have to confess that the Declaration, instead of being a triumph of humanity, was a mistake of a benevolent age against the interests of righteousness among the nations.

BENEFITS TO NEUTRALS OF PRESENT RULES AT SEA.

1. But it may be said that neutrals are benefited by the law of nations as it stands now, since they step in to take the carrying trade for both the belligerents. That there would be an increased activity in the ship-yards of England if any war should break out in the European or the Western World, is quite probable. But so there would be new activity called for somewhere by fires like those of Boston or Chicago, or by famines like that desolating one of late in India. Are we, however, prepared to say that the calamities of one country are on the whole a benefit to the rest of the world? If my money goes to the doctor for sickness in my family, are not the grocer and the mercer the worse for it? The most that can be said is that particular nations who have special branches of industry in their hands receive benefit, when their competitors, or would-be competitors, sustain injury. I cannot persuade myself that the world is made up of repellent atoms; it has a coherence which, with the growth of societies in intelligence, in morality, in skill and versatility of industry, is becoming greater and greater. Let those who would insulate industry, as in a Leyden jar, adopt and profess this view: *credat Judæus apella, non ego.* The interests of neutrals, however, may be contemplated from a wider point of view. To illustrate what I mean, take the case of England, where as many merchant ships are owned as in the rest of the world put together. If a war should break out anywhere, except in inland countries or such countries with a sea-coast as have next to no commerce, England, with her intelligence, her vast capital, her low rates of interest and profit, could take the belligerent's trade, that would otherwise be hazardous, with very little delay; and great profit might accrue for a while from this new employment for vessels. But suppose England herself at war with some other commercial country, as the United States, — which may God forbid, — she has, under existing rules, to raise her sea insurance, to employ, perhaps, neutral ships in her carrying trade. Having the greatest facilities for filling gaps when others are driven out of their wonted employment, she must have the greatest gaps to be filled by other nations, when her vessels are unsafe on the sea. It would seem, then, that unless there is some nation that will always remain neutral amid all the changes of the world, the evil and the good from the present rules of war on the sea would be about equally distributed. To this it may be added, that when exemption takes places, all the vessels of war of a belligerent may be employed in keeping coast-guard, in blockading, and thus the whole force of a navy be devoted to obstructing the commercial movements of the enemy at a most vulnerable point. A hundred vessels at sea scouring the coast for merchant ships

would not make war to be felt so much as fifty employed in guarding the approaches to harbors.

2. But another point demands attention, although it may be thought to be of minor importance. At present the enemy's ships can convey neutral goods, and if taken will be liable to capture, while the goods are free. The old rules as it regards ransom are still in force, as far as the laws of each particular state do not forbid their cruisers to make ransom contracts. In point of fact a number of important nations do forbid this, among which are Great Britain — except in extreme cases — Sweden, Denmark, Holland, Russia, and France, without a certain authorization and certain formalities. (Calvo, ii. 277.) The subject of ransom is simplified by the Rules of Paris in this way — that neutral vessels now can seek for ransom only when carrying contraband goods, or possibly when meaning to breaking blockade, in which cases it is certain that no ransom would be allowed. As for enemies' vessels, they are subject to capture, and can be ransomed just as before the Declaration, if the captor's government permits. But there is a frightful right growing out of the captor's not ransoming or not being permitted to ransom — that is, the right of burning. This license will be exercised, of course, the more freely, the more the authority to ransom is taken from the cruiser. It has its liabilities, indeed; for, if it should turn out that the capture was invalid, the captor and his government are responsible. But it would be a gain to the world if all vessels were free on the ocean in war, if only to get rid of this savage custom, allowed in our War of the Revolution, practiced by England and by France, and (on a vast scale compared with the sum total of their captures) by the Confederate cruisers in the late war. But what is more deserving of notice is, that now neutral property on enemies' vessels, being intact by a solemn law, can yet be burned if the captor sees fit. In other words, the third rule of the Declaration of Paris must be interpreted so as to mean that the neutral puts his goods on the enemy's vessel subject to the risk of being burned, if taken. The rule is that neutral goods, with the exception of contraband of war, are not liable to capture under an enemy's flag. They cannot be captured, but they can be burned. Thus the old proverb, "Out of the frying-pan into the fire," may be fulfilled on the sea as well as on the land.

Lest we should be thought to put our own interpretation on the rules of international law, we beg leave to refer to a recent case mentioned by M. Calvo in the second edition of his extensive and important work. Two German vessels, the *Ludwig* and the *Vorwärts*, were taken by the *Desaix*, in the late Franco-German war, and burned on the day of capture. It was decided by a prize court at Bordeaux that the capture and the burning were authorized, upon which the owners

of the ships, as well as the consignees and owners of the cargo, appealed to the Council of State for compensation for the property destroyed, and the persons interested in the cargo, as neutrals, based their claim on the third article of the Declaration just referred to. A commission supplying the place of the Council of State denied the right to compensation by a decision made the 16th of March, 1872, and gave the following reasons for their decree. We give them in an abridged form: 1. That from article 3 of the Declaration of 1856, it follows only that the neutral owner of goods on board an enemy's vessel has a right to the restitution of his goods, or, in case of sale, to payment of his price, but that it cannot be inferred that he can claim indemnity on account of injury caused to him by valid capture or by acts of war accompanying or following such capture. 2. The prizes were valid, and the destruction was caused by the commander of the captor, because the safety of his vessel, by reason of the number of prisoners on board, would not permit putting part of his crew on the prizes in order to take them into a French port. 3. Hence the destruction of the prizes was the continuation of a fact of war, the fitness of which the owners of the cargoes could not be allowed to discuss, and which could not give ground for a right of indemnity. M. Calvo remarks on this subject that it cannot be presumed that it was the understanding of the parties to the Declaration of Paris to subordinate the rights of belligerents to those of neutrals in all cases, even when the necessities of war require them to act otherwise; that the meaning of the article in question — that neutral goods under an enemy's flag are not "saisissable" or "confiscable" — does not imply that they are "inviolable," and also that, as the means used by the belligerent against his enemy, in consequence of which neutral property might be injured or destroyed, could not be foreseen, so there could have been no intention of opposing the incontestable rights of war. To which we may add that the usages of nations were not altered, but only made more definite by this third rule. So that whatever was allowable before in regard to the destruction of prizes must have continued to be allowable. Now, terrible as the destruction of an enemy's ship is, and beyond anything done on the land, where private property is concerned, the right to destroy is incontestable. The right to do the same to neutral vessels, under the old rules of capture, was much more doubtful, and to be justified only by the most urgent necessity, under responsibility for compensation, when the capturing officer had acted ill-advisedly.

To sum up all that we have to say on this point, if neutral property is thus exposed to destruction, although not to capture, it will the less make use of hostile vessels, or else complaints and ill-feelings will arise between the neutral and the belligerent who has sanctioned this proceeding.

3. We have seen that the present rules of marine capture, as compared with entire exemption of private property on the sea, inflict a little more harm on the belligerent, and give a positive but temporary advantage to neutrals with a large commercial marine. An important subject meets us at this point, namely, Will wars become more frequent and leave fainter traces on the memory of wrong-doing nations for becoming more humane upon the sea? What is it in the present and future which is going to keep down wars, to turn swords into ploughshares? Much has been said about rose-water philanthropy, and on the point that fighting must be in earnest when it goes on. If two nations can fight one another while they have their ships afloat and bearing every luxury or necessity to and from the ends of the earth, war may become chronic, it can be said; it will be a series of professional struggles, boxing-matches between injurers and the injured. That is not the kind of game that is going to sober and purify nations.

But what shall we do? The rose-water dispensation is upon us. Exemption of all innocent property on the sea is as a drop in the bucket compared with the abolition of privateering and the exemption of hostile property on neutral vessels from capture. The abolition of those rules would indeed change the face of marine warfare. I do not suppose that the other exemption would make one war more or less, although it would be a serious good, worth contending for. The war-in-earnest people ought to go in at once for the old order of things *in toto*. If they cannot reverse the movement of modern society, why attempt to oppose something which is a mere corollary of the great problem?

But will wars become more frequent owing to the new rules of marine warfare, or more bloody, or more protracted? We say in reply to this question that, although at present the rules of war are more humane on the land than on the sea, the pinch and stress of war are generally on the land. This was true of our civil war, of the Franco-German, of that of Austria with Prussia, of that by which Northern Italy was severed from Austria, all of which have occurred since 1856. As a general thing this must be so, if you except one or two almost exclusively commercial nations. Nor are wars more bloody than before that epoch, although within a given period of time they may be attended with more slaughter. Still less is it true that they are more protracted. On the contrary, most of the recent wars are distinguished by the marvelous celerity with which the trade of death is carried on — a thing which we cannot help wondering at, although the causes are clear, such as the power of rapid movement produced by the railroad system and the efficiency of the new weapons of war. And on the whole this rapidity is a gain for the world.

HARSHER RULES OF WAR DID NOT PUT A STOP TO WAR.

It is here important to repeat that in times past the old, less humane rules of war did not render wars more infrequent. In time to come, then, if we should fall back into the severer rules, we could not hope much from that cause for a reign of lasting peace. The same causes which gave rise to the four rules of the Declaration and to other peaceful and international reforms of modern times, will act to do away with wars also. What are these causes? We mention two or three of them: —

1. Neutral power, in any given war, is now far greater and increasingly greater than belligerent power. There was hardly any such thing as neutral power in the ancient world, little of it in the mediæval; but now the case is widely different. Neutral interests, being more important, whether we measure them by amount of capital, of intelligence, of influence, or other causes in the world, must more and more control public thought and feeling. But neutral power is for the most part in favor of peace.

2. The voice of political societies is coming to have more control, as compared with the will of rulers, or of a dominant class. Wars hitherto have been undertaken for some political reason which the people felt but little inclined to justify. Aggrandizement of a house, an insult to a ruler or his representative, the desire of military officers for an active life in their profession, some interest or feeling of an upper class or prince, — causes such as these the people had no concern with, while it was theirs to be taxed and to die. Only seldom have strong national antipathies in which whole communities joined given rise to war. But now, with the advance of political freedom and intelligence, they who suffer from wars are beginning to have, if not political power, at least some sway over opinion. Capital and labor are generally peaceful. Sometimes the people shrink from political measures with a wiser and more disinterested spirit, which their Governments do not possess. There can be no doubt that, if Lancashire had been for recognition and forcible opening of the Southern ports, the Government would have gone forward in measures most opposed to our cause. We owe these suffering men a debt of gratitude.

3. The large scale and great condensation within a short time of later wars make immense outlays all at once necessary. The intelligent nations cannot be expected to bear this.

4. If war was the only recourse, the nations might patiently endure the storm. But the eyes of men are opening to the peaceful prospect of arbitration. Neutrals will feel that they have a right to be heard in questions affecting their interests most deeply. The Christian

nations at least must come to feel that war is not the same thing in our modern society, all intertwined and woven together, as it is, that it was in the old atomic condition of the world. Now a war carries apprehension and loss through all the centres of capital. Why should not those who suffer have some voice?

On the whole, then, we see that the neutral interests in modern society really lay at the foundation of the four rules, that these same interests are, upon the whole, on the side of the less important exemption which we advocate, and that they must instinctively move forward to endeavor to put an end to all war. I say nothing of human and Christian feelings, which will vote on the side of neutral interests.

It only remains, according to my plan, to speak for a moment of efforts made in the way of diplomacy and of the opinions which have been expressed in favor of the exemption of all innocent property on the sea from capture. When in 1856 Mr. Marcy made his answer to the invitations given to our Government to adhere to the Declaration of Paris, it is said that the wider exemption of which we speak "was favorably received by France, Russia, and other maritime powers, but met with no encouragement from Great Britain." It was even said, as we learn from Mr. Cobden's writings, by a member of the British Cabinet, that a stipulation to this effect would not be respected in time of war, to which a fair answer would be that the same objection would lie against every inconvenient treaty, and especially the existing four rules, and that prize courts ought to respect and would respect an international rule like this, whatever attitude their Government might take. After the accession of Mr. Buchanan to office, an additional change was proposed in the actual usages of nations. It was, that blockade should hereafter be abolished as far as all lawful commerce was concerned, vessels with contraband goods on board and government vessels only being subject to its operations. Owing to this new suggestion which the Government embraced, the minister at London was instructed in 1857 to suspend the negotiations which Mr. Marcy had initiated. But in 1859 Mr. Cass, then Secretary of State, made a modification in the proposition to reform the usages of marine warfare. The plan now, as suggested by our Government, was to restrict blockades to cases where "a land army was besieging a fortified place, and a fleet was employed to blockade it on the other side." Blockades of strictly commercial ports and interruption of trade by blockade were to be prohibited. The British Government refused to enter into this proposition, when it was made to them, for the reason that the "system of commercial blockades was essential to British naval supremacy."

In the early part of the war Mr. Seward offered, on the part of the

United States, to accede to the Declarations of Paris; but as it was intended by him to bind the Southern Confederacy as well as the loyal States, France and England refused to accept of the accession on such a condition.

In the war of 1866 between Prussia and Austria, the latter power made the following proclamation in regard to enemies' property on the sea (May 13): "Vessels and their cargoes cannot, owing to the bare fact that they belong to a country with which Austria is at war, be captured on the sea by Austrian vessels, nor be declared to be lawful prize by Austrian prize courts. This is on condition that the enemy observe strict reciprocity." A Prussian ordinance of May 19, 1866, accepted of these advances, on the same rule of reciprocity, and in July of the same year Italy followed the example of the two northern kingdoms. This step on the part of Italy was, as I understand it, expressed in the code of commerce for the sea framed in the new kingdom, of which the article relating to this subject runs as follows: "The seizure and capture by ships-of-war of the merchant vessels of an enemy are abolished, on condition of reciprocity, in favor of those powers which shall promise similar treatment in favor of Italian merchant vessels. This reciprocity of treatment shall depend either on the internal laws of a country, or on diplomatic conventions, or on express declarations made by the enemy before the opening of hostilities." Austria then first introduced this principle into the usages of war, and Italy first made it a general rule, conditioned on reciprocity, for the future.

Two years afterward, April 18, 1868, the North German Parliament unanimously passed a resolution authorizing the Government to secure, by diplomatic measures, as a principle of general international law, the rule of the inviolability of private property on the sea. The motion for such a law was made by Dr. Aegidi, a well-known publicist, and Professor at Bonn, and was ably supported by MM. Lesse, of Dantzig, and Schleiden. Aegidi, taking into view the unwillingness of the United States to accept the Declaration of Paris, and that Great Britain was not ready to agree that private property on the ocean should be inviolable, said that it was to be feared, in case of a war between these powers, that retrograde principles as to capture on the sea would get the better, and that neutral rights guarantied by the Treaty of Paris would anew be exposed to peril. It has been stated that in conformity with this vote the minister of the Confederation had been instructed to enter into negotiations with the United States on this subject, but it is not known that they came to any practical result.

In the same year, 1868, in which the German Parliament passed

these resolutions, the subject of them was agitated elsewhere. In England the subject came up before the section of International Law in the Social Science Association, which met at Birmingham, and over which Mr. W. Vernon Harcourt presided. Three gentlemen submitted papers in favor of the immunity of private property on the sea during war; but in Lord Hobart's paper there is this qualifying opinion: "The result of the inquiry is that private property ought, as a rule, to be exempt during the war from capture at sea, and that if there is to be any exception to this rule, it is in the case of the merchant ships and crews, as distinct from the merchandise of belligerent States." A most unmeaning remark, unless it were intended to oppose the immunity in question, because if merchant ships and crews were to be exempt, usage would continue as it does now, belligerent vessels would give place during war to neutral ones, as merchandise would then be safe. Mr. Vernon Harcourt took the other side, and afterward addressed a letter to the "Times," still further explaining his views in reply to some remarks which our minister, Mr. Reverdy Johnson, had made upon his opinion expressed at Manchester. The main point in this letter is the inquiry whether the abrogation of the present rule will tend to diminish or increase the evils of war. This he decides strongly in the negative, of course not on historical grounds, for there is as yet no experience, but on grounds of common sense. It is not true that merchants are an innocent class, and therefore ought to be unaffected in their trade by war. "Mr. Bright and Mr. Cobden," he says, "on occasion of the Chinese war, had some experience of the feeling which prevails when the interests of trade are favorable rather than adverse to war. The merchant belonging to a responsible class is far more responsible for war than soldiers or sailors. If merchants were against a war, in England, at least, no war could be made. Again, he says that it is said on all sides that private property on the sea ought to be free from capture because the same property on the land is free. To this he makes the very sufficient answer that property on the land is not free from liability to be taken without compensation, or destroyed, and that these are sufficient reasons to distinguish between the treatment of the two kinds of property.

This is not the place to reiterate what has been said on the opposite side. War in general is against the interests of merchants, and cuts off their resources to help their country. If a war is popular with this class of persons, because a brisk trade arises in articles contraband of war, the demoralizing influence of such a commerce — not to speak of its risks — ought to be taken into account by upright governments. If it is popular with them because great principles are at stake, they share this feeling with the rest of the political society.

Mr. Vernon Harcourt quotes Mr. Horsfall as saying in Parliament that this question is of paramount importance to England, for the reason, as the context of his words seems to show, that she has a powerful navy and a vast mercantile marine. But suppose England at war with the United States, where privateering is still allowable. Of course England could send out privateers also in such a case as this. But let the trade of the United States be carried on in German and French vessels, the Declaration of Paris would prevent British vessels from touching such vessels, while the privateers of this country could scour the ocean against British commerce. Or if England also should withdraw her trading vessels, what great good then would a large fleet of vessels of war do on the ocean?

But to return to the measures of governments relating to the subject before us. At the beginning of the Franco-German war of 1870, propositions emanated from both nationalities similar to those of Austria in 1866. M. Garnier-Pagès, in the first days of July, "demanded urgency," as the French phrase in legislative proceedings is, that is, called for the immediate consideration of a motion containing, among other humane provisions, this one: "That capture and prize by public ships of enemies' commercial vessels, belonging to nations which, before declaration of war, shall have accepted or shall accept reciprocity," should be abolished. The immediate consideration was granted, but, says M. Calvo (vol. ii. sec. 953, p. 268), the rapid and unexpected march of events prevented the proposition from being followed out. The King of Prussia, on the other hand, made an ordinance, dated July 18, 1870, declaring that French commercial vessels should not be subject to be captured and seized by the Federal fleet, excepting such ones as would be liable to capture under a neutral flag.

During the Franco-German war, shipments were made of materials for war from Great Britain, and it will be recollected how a large number of guns sold by our government, as well as other implements of war, were sent to France from the United States. As far as the exportations from this country were concerned, they were in a certain sense legalized by an article of the Treaty of 1785, between the United States and Prussia, which article, after its expiration, was revived in 1799, and again in 1828. The article with the rest of the treaty could have ceased to have effect in 1840, and afterward on twelve months' notice, but was still in force. It stipulated that when either of the contracting parties was at war with a third power, and the citizens or subjects of the other being neutral, should convey goods called contraband to the enemy, such goods, if intercepted by the vessels of the other party, should not be liable to confiscation or condemnation, and be a loss of property to individuals. The goods might be detained on pay-

ment of the loss growing out of the detention, or the other party might appropriate them, paying, according to the practice called preëmption, a reasonable price therefor. A most falsely humane provision to support a villainous trade. The English had no such treaty with Prussia, and the latter claimed that export of contraband of war ought to be prevented by the neutral within his own jurisdiction. Against the United States no complaint could be made. It was this experience, as is said by M. Kusserow, of Berlin, in a very recent article of the Review for International Law, published at Ghent, that rendered Prince Bismarck indisposed to enter into treaties touching the inviolability of private property on the sea, unless responsibility of neutrals for export of contraband should be joined to it. This the English could not agree to, as it would make a great addition to their police and detective forces necessary. But the demand seems to the writer of this paper a most just one, and he may be permitted to say that it is one which, on various occasions since 1860, he has advocated.

In 1871 a commercial treaty between the United States and the kingdom of Italy was made, which carried out this principle of exemption of private property on the high seas from capture in the following terms (article 12): —

"The high contracting parties agree that in the unfortunate event of a war between them, the private property of their respective citizens and subjects with the exception of contraband of war, shall be exempt from capture or seizure, on the high seas or elsewhere, by the armed vessels or by the military forces of either party, it being understood that this exemption shall not extend to vessels and their cargoes which may attempt to enter a port blockaded by the naval forces of either party."

This treaty, which was to continue in force five years at least, and not to be terminated thereafter without twelve months' notice, is peculiar in this respect, that it abandons the principle of "continuous voyages," which our courts applied in the late war; for it is actual attempt and not ultimate purpose to enter a blockaded port that is made one of the exceptions to the exemptions conceded by the parties.

Thus it has appeared that at different times the United States, Austria, the North German Confederation, Italy, France, have in a direct way expressed the desire that private property on the sea should be inviolable unless engaged in unlawful traffic. Russia and the Netherlands are understood to be favorable to the introduction of this principle into the law of nations. Only Great Britain has regarded the rule as undesirable.

The Chambers of Commerce of Hamburg and of Bremen have passed resolutions declaring such exemption to be desirable. At the instigation

of the Chamber of Bremen, Professor Aegidi, already mentioned, and M. Klanhold published a work in 1867, entitled "Frei Shiff Unter Feindes Flagge," which is a collection of the documents relating to the attempts to improve Maritime Law since 1856. In the same year also Prof. Ercole Vidari, Professor of Commercial Law at Padua, published there a work entitled, "Del Rispetto della Proprieta Privata Fra Gli Stati in Guerra," which has been translated into French. M. Cauchy's work entitled "Respect de la Proprieté Privaté dans la Guerre Maritime," in which he advocates the same exemption, appeared at Paris in 1866. He had already presented a memoir on the same subject to the Academy of Moral and Political Sciences. In his work on international maritime law crowned by the same Academy in 1862, M. Cauchy thus expresses himself: "Commercial liberty on the sea will have passed through the same phases with the civil liberty of nations. It will have been at first relative, and limited to the recognition of the rights of neutrals. Then it will become, we hope, complete and absolute for the commerce of the belligerents themselves, on condition that commerce will be neutral, confining itself to the transportation of innocent articles alone." Dr. Ludwig Gessner, a German, writing in French in the same strain, while admitting the difficulty which this exemption must encounter in gaining the maritime powers over to its side, expresses the hope that it will ultimately triumph, and adds that "it has its source in the perfectly just principle that ever ought to be carried on between states only, and that it is favored by great mercantile interests." M. Calvo, in his treatise on the law of nations (ed. 2, 1870–1872, ii. 261), one of the most extensive and the best of modern times, says that "the inviolability of private property, if not susceptible of an immediate and universal application, at all events constitutes an immovable principle, to which the progress of modern ideas is giving an impulse, and the adoption of which by international law we may henceforth affirm (*Proclamer*)." And if the author of this paper may be permitted to quote from himself as long ago as 1860, when the first edition of his "Introduction to the Study of International Law" was published, he used the following language (p. 320): "We must profess that we indulge the 'pious chimera,' as it has been called, that all private property on the seas engaged in a lawful trade to permitted ports ought to cross the seas in safety. We have the sanction of Franklin and of sober propositions made by our Government for regarding such a rule as both desirable and practicable; we must esteem it nearer to justice, and certainly to humanity, than the present inequality of risk on the two elements."

We conclude our paper with a brief notice of the opinions of a great British statesman, whose voice was ever raised in favor of freedom of

commerce, free transmission of property, the elevation of the laboring classes, the deliverance of the slave from his yoke, and who has had more to do in shaping the commercial policy of England than any other man of our times. We refer, of course, to Mr. Cobden. He desired, as he says in his letter to H. Ashworth, to see three grand reforms carried out: —

1. The exemption of all private property from capture.

2. The restriction of blockades "to naval arsenals and to towns besieged at the same time on land, with the exception of articles contraband of war." By this last clause he must mean that blockading ships ought, in his judgment, to examine merchant vessels at the mouth of the harbors besieged on land and by sea. In other words, as commercial ports not besieged on the land are not to be blockaded at sea, the trade in contraband of war is to be less watched than now.

3. Merchant vessels of neutrals on the high seas to be exempt from "visitation of alien government vessels in time of war as well as in time of peace."

It is added by Prof. Thorold Rogers, in his "Cobden and Political Opinions" (1873, page 144), as a fact "pretty generally known," that after the proposals made by Mr. Cass, in 1859, Lord Palmerston was not indisposed to renew negotiations on the subject, and that there was actually some progress made toward fulfilling the suggestions of Cobden and the original propositions of the American Government. And he attributes the dropping of the subject to the changes on this side of the water.

We hold the humanity, the regard for the interests of the working classes, the peace policy, and the free trade principles of Mr. Cobden, in the highest respect, but we cannot help feeling that he takes away too much power from belligerents. His views are dictated by regard for several interests, such as political economy interprets them to be, and not by a feeling of justice. Why should he wish to have it made internationally unlawful to blockade a place by sea which is not also blockaded by land, or to blockade only naval arsenals? Is it not wrong in itself to supply contraband of war? But he would make the trade in contraband practically free. I am unable to see any justice, morality, or humanity in such a policy. The necessity of prohibiting contraband effectually before it leaves the neutral's ports is shown by late history too evidently to be doubted. The necessity, also, of strict blockade is equally apparent. The notion, into which our Government once fell, that ports not invested by land as well as by sea ought to be free of entrance to vessels, seems to be so absurd and to be made so by the light of recent history that it will probably be never repeated. The restric-

tion of blockades to naval arsenals and to such places as are besieged on land, also is at once met by the decisive objection that in these days of railroads the free entrance of contraband goods and their easy conveyance on the land from place to place would render the operations of war ineffectual. The naval arsenal would be soon supplied with munitions of war landed hundreds of miles away.

CONFERENCE OF BOARDS OF PUBLIC HEALTH,

Held at New York, May 21 and 22, 1874.

INTRODUCTION.

The importance of collecting and distributing information upon Sanitary topics early impressed itself on the American Social Science Association, and led to the organization of a Department Committee by which much useful work has been done. During the present year the American Public Health Association having become fully organized, our own Association came into communication with it, and with the cordial coöperation of its Secretary, Dr. Harris, a Conference of State and City Boards of Health was invited in connection with the General Meeting in May. From information then communicated by Dr. Harris and from the correspondence of the Secretary of the American Social Science Association, the following facts have been obtained in regard to Boards of Health in States and Cities throughout the United States. The information given is incomplete, and perhaps in some respects inexact, but it is deemed best to publish it here, in the hope of completing and correcting it.

There are now eight States that have established either a central Board of Health for the whole State, or a Sanitary Commission, charged with the preliminary work of such a Board. These are, in the order of the establishment of these Boards, Massachusetts, Louisiana, California, Minnesota, Virginia, Michigan, Maryland, and New Jersey. Concerning the first named five, Dr. Harris says, —

> The experience and example of the central Board of Health in each of the five States that first organized such a State Board, may now serve as useful guides to the successful organization of a State Board of Health, in each State that will seek to establish a General Sanitary System. Each State may require to have various and essential modifications of any framework of a General Sanitary Act that might be perfectly adapted to another commonwealth. The State law on this subject in Minnesota would not be completely adapted to the necessities or to certain existing statutes and necessary usages in New York, or in Massachusetts, nor would the Massachusetts law answer for Minnesota, Michigan, Virginia, and California. It will be seen, upon examination of the annexed outline of the special Acts under which each of the five

State Boards has respectively been established, that the friends of sanitary improvement in each State, will manifestly need carefully to forecast the amount of general and intelligent coöperation which the people will put forth in the duties of sanitary administration. The law itself may and always should be an educator, but the laws and ordinances that are successful as educators must be so framed and administered as to elicit popular and exact inquiries and increase the general knowledge and appreciation of the objects for which such laws exist.

The vital importance of local sanitary authority is already exemplified in every State of the Union: and the fact must be conceded, that the faithfulness, efficiency, and permanency of good influence of the local Boards of Health in the rural districts, as well as in most larger towns, cannot be thoroughly secured without the central influence and certain kinds of authority of the State Board. Thus far each one of the State Boards has succeeded in awakening in the communities of the State an increased regard for the right and duty of every district, town, and neighborhood, to invoke the continued aids of law and instruction, to protect the interests of life and health.

A CONCISE DIGEST AND COMPARISON OF THE LEADING FEATURES OF THE SPECIAL ACTS BY WHICH THE STATE BOARDS OF HEALTH HAVE BEEN ESTABLISHED IN SIX STATES OF THE UNION.

MASSACHUSETTS STATE BOARD OF HEALTH.

[By Act passed in June, 1869.]

"Seven persons shall constitute the Board of Health and Vital Statistics," appointed by the Governor, "with advice and consent of the Council," and hold office for seven years, one appointment or reappointment being made every year. "Sanitary investigations and inquiries in respect to the people, the causes of disease, and especially of epidemics," constitute the chief duty of the Board. It also advises the government in regard to the location of public buildings. The Secretary is the executive and only salaried member of the Board.

BOARD OF HEALTH OF LOUISIANA.

There are nine members of the Board, a majority of whom are appointed by the Governor, and a minority by the Municipal Council of New Orleans. This Board has full authority over all matters relating to "Quarantine for the protection of the State." It also has charge of the sanitary police and health government of New Orleans. The powers of this Board are inadequate to the peculiar exigencies that are associated with the nature of yellow fever epidemics. But the chief deficit in the State sanitary powers of Louisiana, is that they do not require the establishment of local health boards in all the parishes of the State. The Louisiana State Board of Health has not been commissioned or empowered to enter upon hygienic inquiries or the general duties which characterize the Massachusetts Board of Health.

STATE BOARD OF HEALTH OF CALIFORNIA.

This Board was organized in 1870. It consists of seven physicians, who hold office for four years. Their appointment is vested in the Governor alone. The functions of this Board are defined in the same concise and ge nera

phraseology, as are those of the Massachusetts Board of Health, and by the Act its members were instructed to devise and report "some scheme whereby medical and vital statistics of sanitary value may be obtained."

STATE BOARD OF HEALTH OF MINNESOTA.

This Board was organized in the spring of 1872. It consists of seven physicians, who hold office four years, under appointment from the Governor. The members of the State Board are required to "place themselves in communication with local boards of health, the hospitals, asylums, and public institutions throughout the State," and "take cognizance of the interests of health and life among the citizens generally." To these duties are added all the functions which Massachusetts, Louisiana, and California have respectively assigned their State Boards of Health. A supplementary Act has enjoined upon every town and city in the State, the duty of establishing a local board of health; and the State Board is authorized to enforce this duty, and required to advise and aid the local board. The Secretary of State, who has general charge of vital statistics, under an old law, is required to seek the counsel and aid of the State Board of Health in the Bureau of Vital Registration.

STATE BOARD OF HEALTH OF VIRGINIA.

Organized in the spring of 1872, and consisting of seven members, all of whom must be physicians, three being residents of the city of Richmond, and four from different sections of the State, this "Board of Health and Vital Statistics" was set at work, with the strict injunction that it "shall not in any way be a charge upon the State." Its functions are precisely like those of the State Board of California.

STATE BOARD OF HEALTH OF MICHIGAN.

This Board was organized in 1873. The phraseology of the Act to erect the Board and define its functions, is here quoted. It needs to be mentioned that other laws in Michigan provide for local boards of health and establish a system of Vital Statistics.

SECTION 1. *The People of the State of Michigan enact*, That a board is hereby established which shall be known under the name and style of the "State Board of Health." It shall consist of seven members as follows: Six members who shall be appointed by the Governor with the consent of the Senate, and a secretary, as provided in section four of this act. The six members first appointed shall be so designated by the Governor that the term of office of two shall expire every two years, on the last day of January. Hereafter, the Governor, with the consent of the Senate, shall biennially appoint two members to hold their offices for six years, ending January thirty-first. Any vacancy in said Board may be filled, until the next regular session of the Legislature, by the Governor.

SECT. 2. The State Board of Health shall have the general supervision of the interests of health and life of the citizens of this State. They shall especially study the vital statistics of this State, and endeavor to make intelligent and profitable use of the collected records of deaths and of sickness

among the people; they shall make sanitary investigations and inquiries respecting the causes of disease, and especially of epidemics; the causes of mortality, and the effects of localities, employments, conditions, ingesta, habits and circumstances on the health of the people. They shall, when required, or when they deem it best, advise officers of the government, or other State boards, in regard to the location, drainage, water supply, disposal of excreta, heating, and ventilation of any public institution or building. They shall from time to time recommend standard works on the subject of hygiene for the use of the schools of the State.

SECT. 3. The Board shall meet quarterly at Lansing, and at such other places and times as they may deem expedient. A majority shall be a quorum for the transaction of business. They shall choose one of their number to be their president, and may adopt rules and by-laws subject to the provisions of this act. They shall have authority to send their secretary, or a committee of the Board to any part of the State, when deemed necessary to investigate the cause of any special or unusual disease or mortality.

. . . . . .

Sections 4 and 5 provide for the election and services of a Secretary, and specify his functions under the Board.

Sections 6 and 7 relate to expenditures.

SECT. 8. It shall be the duty of the health physician, and also of the clerk of the local board of health in each township, city, and village in this State, at least once in each year, to report to the State Board of Health their proceedings, and such other facts required, on blanks and in accordance with instructions received from said State Board. They shall also make special reports whenever required to do so by the State Board of Health.

SECT. 9. In order to afford to this Board better advantages for obtaining knowledge important to be incorporated with that collected through special investigations and from other sources, it shall be the duty of all officers of the State, the physicians of all mining or other incorporated companies, and the president or agent of any company chartered, organized, or transacting business under the laws of this State, so far as practicable, to furnish to the State Board of Health any information bearing upon public health which may be requested by said Board for the purpose of enabling it better to perform its duties of collecting and distributing useful knowledge on this subject.

SECT. 10. The Secretary of the State Board of Health shall be the superintendent of vital statistics. Under the general direction of the Secretary of State, he shall collect these statistics, and prepare and publish the report required by law relating to births, marriages, and deaths.

. . . . . .

In regard to the respective powers of State and of local Boards, DR. HARRIS says, —

The local Boards of Health should have authority to inspect all school rooms, and to advise with the Boards of Education concerning matters affecting life and health. The State and local Boards of Health should be required by law to make a faithful sanitary inspection and inquiry in every Hospital, Medical Dispensary, Asylum, Reformatory and Penal institution every year, and

as much oftener as circumstances may warrant; and such inspections and duties should be carefully supervised in some degree by the State Board of Health aided by counsel or information given by the State Board of Public Charities. A chapter in each yearly Report of the Health Boards, — State and local, — should comprise a careful statement of results, etc., in this class of duties. The usefulness, dignity, or permanent influence and success of the local sanitary authority will be promoted if the State authority and aid can be extended to the local officers, when proper, in matters of local inspection and inquiry upon subjects of general as well as local interest. The purpose and duty of harmonious coöperation between the State and local Boards should be obvious to the people. By such influences may the people be kept interested in the sanitary duties that pertain to their own localities and affairs. The centralization of authority relating to the administration of sanitary laws may become desirable at some future time, but it would be impolitic and contrary to the well known preferences of the people and the usages of civil government in the primary areas of political or civil organization, to control the administration of Health Laws so as to fail to incite and even require the inhabitants to maintain and obey local authority.

In addition to what is stated above, it may be said that the reports of these State Boards are all annual except that from California, which is made biennially, and that from Michigan, which may become biennial. The Michigan Board made its first report in the present year, and all the State Boards have issued reports in 1874, except that of Maryland, which will report first in 1875. The Massachusetts Report (the fifth annual volume) this year contains almost as many pages as those from the other six States put together. Its pages this year number 566; while California prints less than 240 pages; Louisiana, 203; Virginia, 15 pages; Minnesota, 98; and Michigan, 101. In Michigan however, there are special reports and collections of statistics edited by members of the Board. The Board of Health of Virginia, established in 1872, has made two brief reports. Minnesota established its Board of Health about a month after Virginia had done so; and there, also, we find two annual reports. Louisiana had a kind of State Board of Health in 1866, and perhaps earlier, which was reorganized in 1870; and Maryland has just created one, which was organized on the 4th of May, 1874. California created such a Board in 1870; and it has made two biennial reports. New Jersey has not yet established a Board of Health, but last winter organized a preliminary "Sanitary Commission," which will probably result in a permanent Health Board.

The names of the members of State Boards of Health will be found under each State in the following Abstract, which is compiled from letters sent by the Secretaries of each State in reply to questions asked of them in December, 1873, by the Social Science Association. Those States have been placed first on the list which have either a good sys-

tem of registration or a State Board of Health, or both. It is believed that Massachusetts takes precedence of all the States in its system of Registration, which has been in force for more than thirty years.

PUBLIC HEALTH AND VITAL STATISTICS.

Abstract of Answers from all the States of the Union,

MASSACHUSETTS.

It is now thirty-two years since the new Registration System of Massachusetts was established by law, — the Act for that purpose having been approved March 3, 1842. But although this Act for the first time required returns to be made to the Secretary of the Commonwealth of all Births, Deaths, and Marriages, yet laws in force for centuries had required a record of such events to be kept in the towns and cities. An Act was passed, as early as 1639, ordering "that the days of every marriage, birth, and death of every person within the jurisdiction of Massachusetts," should be recorded. By subsequent Acts, passed between that time and 1657, "parents, masters, guardians, executors, and administrators" were required to deliver to the town clerk the names of such persons belonging to them as had been born or died. Every "new married man" was likewise required to deliver the certificate of his marriage to the town clerk to be recorded. And the town clerk was obliged to make a copy of these records, quarterly or annually, and transmit it to the clerk of the County Court in which the town was situated, to be by him recorded. Fees were allowed each town clerk, paid by the person obtaining the record, for recording every birth, marriage, or death, and penalties were imposed on him and others for neglect. Similar laws were passed about the same time in Plymouth Colony. They were reënacted under the charter of 1692, and continued in force until the Revolution, excepting the provision requiring returns to be made to the County Courts, which was omitted. In 1785 and 1795 the laws on the subject were revised, and Acts were passed, which, being incorporated in the Revised Statutes of 1836, continued nominally in force until the Act of 1842 took effect.

The Act of 1842 was greatly improved by the Act of March 16, 1844, which was again modified by the Act of May 2, 1849. At the general revision of the Statutes in 1859–60, further improvements were made in the Registration Laws, which now remain substantially as they stand in the General Statutes of 1860. The returns from the cities and towns are made to the Secretary of the Commonwealth, by whom they are compiled and published. For some years they have been edited by the late Secretary of the State Board of Health, Dr. George Derby.

The State Board of Health was organized in 1869. Its present members are H. I. Bowditch, M. D., of Boston, *Chairman;* J. C. Hoadley, of Lawrence; David L. Webster, of Boston; Richard Frothingham, of Boston; R. T. Davis, M. D., of Fall River; T. B. Newhall, of Lynn; Charles F. Folsom, M. D., of Boston, *Secretary.*

There are boards of health in most of the twenty cities of Massachusetts,

but very few of these except that of Boston are efficiently organized under the direction of medical men, and their reports are of little value. The Health Department of Boston was reorganized in 1873, and now consists of three members armed with ample powers, which have been vigorously exercised of late.

CALIFORNIA.

No registration is required by law, and no returns or reports are made, except by the State Board of Health established in 1870. There are no city boards of health. The members of the State Board are: Henry Gibbons, Sr., M. D., *President*, San Francisco; L. C. Lane, M. D., San Francisco; F. W. Todd, M. D., Stockton; A. B. Stout, M. D., San Francisco; Luke Robinson, M. D., Calusa; J. I. Montgomery, M. D., Sacramento; Thomas M. Logan, M. D., *Secretary*, Sacramento.

LOUISIANA.

Registration is required but not enforced, and no returns are made to the Secretary of State. There is a State Board of Health, and a city Board of Health at New Orleans. The members of the Sate Board are: C. B. White, M. D., *President*, New Orleans; John S. Walton, A. W. Smith, M. D.; H. D. Baldwin, M. D.; W. H. Hire, M. D.; B. Maas, M. D.; S. C. Russell, M. D., New Orleans, *Secretary*.

VIRGINIA.

Registration is required by law; reports of births and deaths are made to the auditor of the State, but are not published annually. There is a State Board of Health, established in 1872. There are city boards of health at Richmond, Norfolk, Petersburg, Lynchburg, Alexandria, and Stanton, but only the first makes reports. The State Board of Health consists of these members: James L. Cabell, M. D., *President*, Charlottesville; Levin S. Joynes, M. D., *Secretary*, Richmond; J. Grattan Cabell, M. D., Richmond; George Ross, M. D., Richmond; Landon B. Edwards, M. D., Richmond; A. M. Fauntleroy, M. D., Staunton; John W. Lawson, M. D., Isle of Wight County.

MINNESOTA.

Registration required by law and the publication of vital statistics made annually since 1870. There is a State Board of Health established in 1872, the members of which are: D. W. Hand, St. Paul, *President;* N. B. Hill, Minneapolis; V. Smith, Duluth; G. D. Winch, Blue Earth City; Franklin Staples, Winona; A. E. Senkler, St. Cloud; Charles N. Hewitt, Red Wing, *Secretary*.

MICHIGAN.

Registration required by law; the returns are made to the Secretary of State, and published annually. A State Board of Health was established in 1873, the members of which are: Homer O. Hitchcock, M. D., *President*, Kalamazoo; Zenas E. Bliss, M. D., Grand Rapids; Robert C. Kedzie, M. D., Lansing; Rev. Charles H. Brigham, Ann Arbor; Henry F. Lyster, M. D., Detroit; Rev. John S. Goodman, Saginaw; Henry B. Baker, M. D., *Secretary*,

Lansing. Dr. Baker is also Superintendent of Vital Statistics, *ex officio*, and editor of the annual registration reports, four of which have been issued.[1]

MARYLAND.

Registration is required but not enforced; returns are not made by physicians. A State Board of Health was established in 1874, and there is also a city Board of Health in Baltimore. The members of the State Board are: Nathan R. Smith, M. D., Baltimore; C. W. Chancellor, M. D., Baltimore; E. Lloyd Howard, M. D., Baltimore; J. Robert Ward, M. D., Baltimore County; Charles M. Ellis, M. D., Cecil County.

VERMONT.

Registration is required, and reports have been published annually since 1857, under direction of Secretary of State. There is no State Board of Health, and no city boards.

RHODE ISLAND.

Registration is required, and an excellent system has been in force for years; reports having been published annually since 1853. There is no State Board of Health, but a city board in Providence.

CONNECTICUT.

Registration is required and reports of much value are annually published by the State Librarian. There is no State Board of Health.

NEW YORK.

Registration is required, but not enforced; no reports have been made for several years. There is no State Board of Health and no records of the local boards or officers are kept at Albany. City Boards of Health exist in New York, Rochester, Brooklyn, Troy, Buffalo, and other cities. The Brooklyn City Board was organized in 1873 (May 8); the Troy Board established in 1843; the Rochester Board in 1832.

NEW JERSEY.

There is no State Board of Health with full powers. Registration is required by law, and annual reports are made by the Secretary of State. There are city Boards of Health at Trenton, Newark, Jersey City, Paterson, and New Brunswick. The city Board was established at Trenton in 1850; its reports are published in the newspapers. The reports of the Newark City Board are published with the city documents. The returns of births and deaths are prepared and published annually from townships in New Jersey by the Secretary of State, but these are yet very imperfect, though growing better year by year. A Sanitary Commission, of which Dr. Ezra M. Hunt, of Metuchin, is chairman, was established in New Jersey by the Legislature of 1874.

PENNSYLVANIA.

No registration is required, and no reports are made of births, deaths, etc., by the State authorities. There is no State Board of Health, but there are

[1] See Dr. Baker's Paper on a subsequent page.

city boards at Philadelphia, Pittsburg, Allegheny City, Harrisburg, Allentown, Lancaster, Reading, Carlisle, and Lebanon. In Philadelphia there is a good system of registration and annual reports are made.

NORTH CAROLINA.

(No information received.)

SOUTH CAROLINA.

No registration required by law, and no reports are published. There is no State Board of Health, and no city board.

ALABAMA.

(No information received.)

GEORGIA.

No registration is required and no returns are made, except of marriages in the counties. There is no State Board of Health, and no city boards.

ARKANSAS.

No registration is required, and there are no reports of births, marriages, etc., no State Board of Health, and no city boards.

FLORIDA.

No registration is required by law, no State or City Board of Health.

TEXAS.

Registration is required, but not enforced; no reports are made. There is no State Board of Health, and no city board that makes reports.

ILLINOIS.

No registration is required and no reports are made. Marriages are recorded by the county clerks. All the large cities have boards of health.

INDIANA.

No registration is required and no reports are made. There is no State Board of Health.

IOWA.

No registration is required and no reports are made. There is no State Board of Health, and no city board.

WISCONSIN.

Registration is required but not well enforced; reports are made by the Secretary of State and published annually. There is no State Board of Health, but a city board at Milwaukee.

MAINE.

No registration is required by law; there is no State Board of Health, a city board exists at Portland.

NEW HAMPSHIRE.

Registration is required by law, and returns are made to Secretary of State, but only half of the towns make any, and they are not published. There is no State or City Board of Health.

KENTUCKY.

(No information received.)

KANSAS.

No registration is required and no reports are made; there is no State Board of Health, and no city boards.

MISSISSIPPI.

No registration is required and no reports are made; there is no State Board of Health, but city boards at Vicksburg and Natchez.

MISSOURI.

No registration is enforced and no reports are made by the State. No State Board of Health exists, but a city board in St. Louis.

NEBRASKA.

Registration is required but not enforced ; no printed reports by Secretary of State are made. No State Board of Health.

NEVADA.

(No information received.)

OHIO.

Registration is required by law, but is very imperfect, and there is no State Board of Health; city boards of health exist in all the large cities; the Cleveland Board was established in 1836. At Cincinnati there is a city registration of births and deaths.

OREGON.

No registration is required by law, except of marriages. There is no State Board of Health, and no city board.

TENNESSEE.

No registration is required, and there is no State Board of Health, or active city board.

CONFERENCE OF BOARDS OF HEALTH.

Thursday morning, May 21, was devoted to a conference between the Health Boards of different States and cities and members of the Executive Committee of the Association. Professor Charles F. Chandler, President of the New York Board of Health, presided. Dr. Bowditch, the Chairman of the Massachusetts State Board, and Dr. R. T. Davis, a member of the same commission ; Dr. Ezra M. Hunt, Chairman of the

New Jersey Sanitary Commission; Professor Edward Lloyd Howard and Dr. Charles M. Ellis of the Maryland Board; Dr. D. F. Lincoln, Mrs. Dall, of Boston, and others, took part in the discussion. The topics under discussion were the formation and powers of State Boards of Health, local Boards and their powers, and the operation of the methods of procuring the statistics of births, deaths, and marriages.

Dr. Bowditch, of Boston, Chairman of the Massachusetts Board, opened the discussion with a description of the difficulties which attended the organization of the State Board of Health in Massachusetts, and said that now it was so appreciated that if the Legislature were to abolish it the people would demand its reappointment. He believed in the appointment of men of other professions, in addition to the medical profession. On the Massachusetts Board they had had lawyers and engineers, and business men who could look at things in a business way. There were seven members, all of high standing in their departments. It was unfortunate to have a Board entirely composed of physicians, who look at matters too much from their own standpoint.

Dr. Robert T. Davis, of the Massachusetts State Board, speaking of the powers of the local boards, said it was impossible to grant by statute greater powers than local boards already have under the common law. The extent is limited only by the measure of the emergency, if they choose to exercise them. Of course they hesitate to exercise them. Mr. Sanborn said that it had been his experience that in very many towns of Massachusetts there was great neglect of the matters of public health. The question of a possible conflict between the State and local boards was then discussed, but this was stated by Dr. Bowditch, from his experience, to be unlikely. Dr. Davis said there seemed to be a tendency among the local boards to throw off their duties upon the State boards.

Professor Chandler, after giving a sketch of the position of the Health Board in this city, said that the question of the economy in the establishment of health boards, the economy of sanitary regulations and their enforcement, had never been fully presented to the public. It seems, he said, that the idea of pecuniary advantage to the community is an argument which should be used.

The discussion next turned upon the registration of births and deaths. Mrs. Dall said it was not compulsory in Boston, and was therefore very untrustworthy. Professor Chandler said that in New York city the registration of deaths was very complete. The position of the city as an island rendered it impossible for a body to be taken away without a permit. The registration of births, although compulsory, was not so thorough. There was great difficulty in the registration of marriages, particularly of Catholics.

Professor Chandler favored the keeping of records in every town, and the sending of a summary report to the State Board. Dr. Elisha Harris, Registrar of the New York City Board, said that, while the records were much more perfect than formerly in New York City and Massachusetts, a system of canvassing was necessary to secure greater accuracy. Dr. Hunt, of the New Jersey Sanitary Commission, said that something was done to secure registration in New Jersey, but the system was imperfect. Dr. Harris said, alluding to a remark by Professor Chandler, that a former difficulty in obtaining accurate statistics was the unwillingness of Roman Catholic clergymen to make returns of marriages — a difficulty being gradually removed. But the statistics of some towns were very loosely kept. He knew of one where the deaths reported by the census takers were less than a quarter of the interments known to have taken place. Mrs. Dall said it was impossible legally to prove any birth during the last twenty years in Boston.

Dr. Harris then presented a paper on Registration, which, without being read in full, was received for printing. It is as follows: —

VITAL REGISTRATION. — PUBLIC USES OF VITAL STATISTICS.

As every science is based upon an accurate knowledge of facts to which it relates, so the completeness and practical usefulness of any science depend upon the breadth and thoroughness of the inquiries into the range, relations, and significance of the individual facts. The science of life and health, the laws of population, and the social state of the people, the expectation or chance of lives, and the preventable causes that abridge the length of life as well as diminish bodily health and soundness, depend upon a variety of conditions which must be accurately examined and compared in order to apply them to practical ends. Mortality tables and birth records as given to us in early times, fail to teach the truths which mankind most need to know concerning the causes that war against health prosperity in human lives. But in the progress of knowledge during the last fifty years the registration of vital statistics has come to signify something more important to the world than that each resident who came and departed in the ceaseless train of mortal life was "born on such a day and died on such another." Vital registration and vital statistics comprise the "account current" of human lives, together with balance-sheets and all the records, correspondence, and returns of factors, and the accounts of waste and repair, and of the assurance values of the living stock. Though the first elements of vital registration seem to be very simple and of ready arrangement for the book-keeping of a State in account with population, the chief fields of inquiry and practical information lie beyond the great records of the census of the people and public registers of the three grand epochs of a life-time — birth, marriage, and death. These first and essential records have become more and more complete and trustworthy as our civilization advances. They should be perfect. Yet the fields of practical study and the sanitary and social duties lie further on, and they most concern individuals and families, legislatures and States. The

various direct uses of the records, as registered in a Bureau of Vital Statistics, are obvious, for families and estates as well as individuals are continually appealing to these records for defense and proof of their rights. There are, likewise, continual appeals to the total summaries of the registers to aid in the solution of various politico-social problems. And to the science of hygiene and the discovery of the conditions, removable causes, factors, and laws of epidemic and other diseases and the disasters that imperil and waste human life, vital statistics contribute the highest influence and most practical results. The ablest and most carefully accurate teacher of sanitary science in our time — Professor Parkes, of England — states: "The fact that in modern times the subject of hygiene generally, and State medicine in particular, has commenced to attract so much the public attention, is undoubtedly owing to the application of statistics to public health. . . . . It is impossible for any nation, or for any government, to remain indifferent when, in figures that admit of no denial, the national amount of health and happiness, or disease and suffering, is determined. . . . . The establishment of the Registrar General's office, in 1838, and the commencement of a system of accurately recording births and deaths, will hereafter be found to be, as far as the happiness of the people is concerned, one of the most important events of our time."[1] The personal records and arithmetic of human life have pointed the way to sanitary investigation and reforms, and in return, the methods, the accuracy, completeness, and analysis of vital statistics have been incited by these noble and life-saving uses of such statistics. These new uses of the recorded facts that make up what are termed vital statistics not only marked the new era in public hygiene, but the value and variety of the practical applications of the facts which are found necessary for the special uses desired by sanitary students when they would inquire into the causation and prevention of evils which war against life have led to most important improvements and greatly increased thoroughness in the statistical records themselves, so that the definite accuracy and completeness of our statistical registration to-day immensely surpass the records of years past.

The accuracy and completeness of the statement of facts, and the exercise of ceaseless patience in the accumulation and logical arrangement and study of them, will always determine the uses to which they should be applied. Vital statistics conspicuously require such patient and logical study. The foundations for complete and accurate analysis of the registered facts in this branch of knowledge require the following conditions, namely: —

1. That the census of population be complete and accurate.

2. That the causes of death be correctly given.

3. That the personal record, social and industrial relations, and the local and domiciliary circumstances of every death, shall be methodically and very accurately stated.

4. That the current records of mortality shall be subjected to continual study and such grouping and analysis as shall bring the comparable facts into a concrete statement.

5. That the registration of birth and marriage shall be as complete as the

[1] *Practical Hygiene*, by Dr. Parkes, p. xxii.

records of mortality, and that, as respects the individual records in this branch of vital registration, they should be perfect, in order that the full value and significance of all the records which are registered shall be insured to statistical and biological science, as well as to the persons represented in the registry.

The perfectness of individual records is the very first condition of utility of vital statistics. The negligence of the duty of accuracy and completeness in the certificates of birth, marriage, or death, is inexcusable, and so is the neglect to return records of birth and marriage, under the plea that such statistics are valueless, except all births and marriages are registered. The fact is, that census and other registered statistics are never numerically complete. Even the statistics of armies and of revenues, which certainly ought to be absolutely complete, fall far short of numerical accuracy in some particulars. But the most accurate and practically important deductions from any statistics are made from the masses of records which have been proved to be accurate and comparable, while the floating margins of incomplete and questionable records are defined and used for whatever values they may possess. Let us consider some of these points for a moment.

THE CENSUS OF POPULATION.

No census is as complete and accurate as it is desirable it should be. But every successive enumeration of civilized people is becoming more and more accurate and complete. It is scarcely two hundred years ago that the best student of the laws of mortality in England said that until then he "had been frightened by that misunderstood example of King David (in enumerating the people), from attempting any computation of the people of this populous place" (London). At that period it was a common thing for the people of London, even the high officials of the city, to speak of millions of city inhabitants, when the actual number was below 600,000, and for two centuries the record of births and deaths showed the total yearly burials, and gave only about two thirds as large a number for the total births. But as the city population continued to increase by its birth-rate as well as by immigration, there must have been error in the birth registration; and there was, for we find they counted only the baptisms and omitted the unchristened. This kind of error occurs in the writings upon some social statistics in our day, where only the returns given by physicians attending at births are quoted as the total statistics of births. Errors equally important may be found in the statistics of marriage: and in this branch of registration nothing short of a formal ante-nuptial record and official certificate of such compliance with the forms of law will prevent the negligence and defects that occur in this branch of vital statistics. The social and legal interests which are concerned in this registry must also in this manner be made sure.

DEFECTIVE METHODS OF TAKING THE CENSUS.

Experience proves that trustworthy statistical elements and groups of results of enumeration cannot be obtained by the defective and roving methods which have prevailed in many countries until recently, and which, in the United States, have until now defeated the best efforts of successive

superintendents of the census. Whoever will read General Walker's remarks upon the "Essential Viciousness of a Protracted Enumeration" (see pages 21 and 22, volume Population, Ninth Census), will be prepared to join in purpose to secure the adoption of the true and rational method of taking the National and State census in all subsequent times.

With all its imperfections the census approximates the results that are required in the study and uses of vital statistics, and like the total columns which we foot up in the records pertaining to birth, marriage, and death, we use all that we find accurately reported, and study that which is questionable and incomplete, making such uses as we can of such reports.

SOCIAL RECORDS — BIRTH AND MARRIAGE REGISTRATION.

The fact being now ascertained that the life assurance values of individual lives and various important deductions that bear directly upon the expectation of life, depend upon accurately registered records of the birth and social state of given populations, there is an obvious relation of these two branches of vital statistics to financial as well as social, moral, and personal interests. Yet the latter considerations are amply sufficient to demand the utmost faithfulness and completeness in these records. But when we consider that a correct and trustworthy life assurance table or annuity schedule cannot be constructed without an accurately stated basis in the public registers of birth and death, the argument for providing by law for insuring the utmost completeness and accuracy of these records is strong enough.

RECORDS OF MORTALITY.

The personal and family record that identifies and describes the deceased individual is readily rendered quite complete. The forms prescribed in the Bureau of Vital Statistics in the City of New York may be regarded as sufficiently complete and simple to answer all practical purposes of mortuary registration. The permanent uses of the registers of mortality do not require a record of all the information which, for certain purposes of local sanitary government, may need be called for at the time of the death and interment of the individual. Hence arises a necessity for obtaining such special information by methods which every Health Board or Register of Vital Statistics may demand and secure. The specifications desired concerning various diseases and questionable causes of death can best be obtained at the time of death. There are certain conditions and places of domicile and of occupation, and concerning complicating and attendant causes or conditions concerned in a death, that should receive a record in the certified voucher sent to the Register, but which are merely for the information and uses of sanitary authorities. Such, for example, are the memoranda required in our New York certificates of death, as regards the number of families in a house in which a death occurs, and such is the statement given in the same certificate in regard to the duration of the fatal disease and the relation of remoter and complicating causes.

Every Board of Health in cities and large towns, and the local Health Officer in every village and rural sanitary district, where there are such

districts and officers, will, with great advantage, specify and obtain such kinds of information in connection with the ordinary certificates of death.

STATISTICS OF SICKNESS AND CAUSES OF DEATH.

In every city, in most large villages, and any State or large district of country, the records of mortality would show, when properly registered, that there is a vast difference in the death rates of different localities, and still more, that the chief fact in the registered difference is simply that diseases which are known to be most preventible — mostly due to neglect of sanitary duties and precautions, especially to neglects of local and domestic hygienic measures — stand charged upon the death records as the causes of the excess in the death rate. In order to bring this kind of information to bear in full force, there is need of further records of prevailing diseases and of sickness rates in particular localities. These will, ere long, be found of invaluable importance, but they will neither be obtained, nor become available except where there is an efficient sanitary service. The Health Department of the City of New York has, since 1866, felt the want of such statistical and descriptive information, and must at last succeed in obtaining it. In each systematic inspection of tenement dwellings, some useful information in this line has been acquired and it has corroborated the indications of the records of mortality in the respective houses and localities. The following tables will illustrate this: —

TABLE A.

A STATISTICAL VIEW OF THE DEATHS IN TENEMENT HOUSES (WITH A GREAT EXCESS OF MORTALITY) IN FIVE STREETS OF NEW YORK IN 1873, ETC.

[From three to nine deaths occurring in each house. Houses containing from four to thirty families.]

Street.	Houses in which Three Deaths occurred.	Houses in which Four Deaths occurred.	Houses in which Five Deaths occurred.	Houses in which Six or more Deaths occurred. (Numerals in parenthesis showing the actual Number of Deaths in the respective Houses.)
Cherry Street .	3 3 3 28, 36, 56, 146, 148, 158, 3 244, 292, 324, 362, 437.	7 5 6 32, 126, 144, 221.	7 3 18, 22, 38, 174.	3 (8) (6) 26, 137.
Henry " .	27, 45, 236, 302.	238, 296.	4 8 42, 90, 95.	3 (6) 3 (6) 125, 310.
Mott " .	3 6 21, 46, 49, 103, 196, 205, 3 217, 252.	7 3 47, 57, 104, 143, 3 4 157, 159, 204, 229, 232, 282, 297.	....	3 (6) 4 (7) 102, 115.
Mulberry Street	4 3 9 3 20, 38, 39, 44, 45, 53, 54, 3 62, 65, 73, 79, 89, 109, 5 5 110, 113, 118, 119, 140, 5 167, 171, 175, 235.	7 5 3 8, 25, 41, 47, 51, 5 4 86, 115, 116, 120, 5 4 166, 301.	82, 111, 121.	4 (9) 7 (7) 4 (6) 59, 55, 87.
Washington St.	3 3 3 25, 29, 35, 57, 127, 135, 3 429, 715, 759, 781, 808.	3 3 6 5 10, 16, 26, 59, 96, 4 113, 637.	3 6 3 12, 28, 33, 107.	6 (7) (8) 102, 757.

The black numerals over any particular figure (street numbers) show the number of deaths in such house for the year 1872.

GENERAL SUMMARY OF THE MORTALITY.

Mortality.	First District.	Second District.	Third District.	Total.
In tenement houses	3,113	5,099	5,897	14,109
In public institutions	734	288	3,733	4,755
In private dwellings	2,749	2,003	5,468	10,220
Total Mortality	6,596	7,390	15,098	29,084
Percentage of deaths in tenement houses	47.19	69.00	39.06	48.51
Percentage of deaths in public institutions	11.13	3.90	24.72	16.35
Percentage of deaths in private dwellings	41.68	27.10	36.22	35.14
Percentage of deaths in tenement houses and public institutions on total mortality	58.32	72.90	63.78	64.86
Percentage of deaths in tenement houses and public institutions on total population [1]	1.76	1.93	2.16	2.001
Percentage of total mortality on total population [1]	3.02	2.65	3.39	3.091

[1] These percentages are estimated upon the enumeration of the Census of 1869–70, and the special Census of Tenement Houses by the Board of Health in 1869–70. The public institutions derive their inmates from the tenements, mainly; hence their mortality may, for certain purposes be counted together. It will be observed that about 42 per centum of the total population gave 66 per centum of the total mortality.

A correct understanding of the practical value and uses of the separate mortuary and hygienic account with each house, each block of houses, and each street, and each special district, requires that we should have before us the map of the sanitary topography of the city, the sanitary inspection census and description of the several houses, and the census and description of each district; these have always constituted a part of the basis for such an analysis of the course and quantity of mortality and of the various causes of death. Every tenement house is registered and minutely described in the records of the Health Department, and the duty of devising and conducting the first sanitary survey and inspection registry having been committed to the writer of this paper, he would add that in this study various circumstances concerned in the mortality of families and in particular houses and places these inspection records have special value.

The form of inquiry on the opposite page was adopted for the first inspection and registry. Under these heads of inquiry, — 40 in number, and each one answered after personal inspection, — 14,494 houses, containing an average of 7.13 families in each, were carefully registered, and a description of all grounds and every class of buildings given to show the surroundings of these great congregate or tenement dwellings. In these tenements were found 113,402 families and 463,392 persons. But for our present purpose we may omit the details of these recorded facts concerning the homes of the 113,402 families and simply present this condensed copy of column headings of the Registers as now bound up and used for reference in the Health Department.

ILLUSTRATION OF THE UTILITY OF A CONSTANT SANITARY ACCOUNT WITH DWELLINGS, LOCALITIES, AND CLASSES.

NOTES OF SANITARY SURVEY, NEW YORK, 1870, BY THE METROPOLITAN BOARD OF HEALTH.

	Registered Nos.																		
	1 Street	2 No.	3 Facing N. S. E. W.	4 Front or Rear (F. R.)	5 Name of Owner, Lessee, or Agent.	6 How occupied.	7 Stores and Manufactories in House, and where.	8 Width and Depth of: The House. / Unoccupied portion of the Lot.	9 Sanitary Condition of the unoccupied portion.	10 Sanitary State of House Drainage.	11 Location, Number, and Condition of Privies.	12 Are they sufficiently flushed. How?	13 Sanitary Condition of Cellars or Basements.	14 What Offensive Exhalations. Whence.	15 Location and Condition of Garbage Vessels.	16 Ventilation of Halls.	17 No. of Families.	18 Total Population. (State if C. or E.)	19 How many persons unvaccinated.	20 REMARKS AND SUGGESTIONS concerning Sanitary Wants of House or Premises. (And if a Tenement House fill up the Special Record for the Tenements.)

SPECIAL NOTES ON TENEMENT HOUSES, — *continued.*

	Registered Nos. (repeated.)																		
		1 Material of Building.	2 Old or New.	3 No. of Stories high.	4 Detached or in Block.	5 Depth of open space in rear.	6 Hall, how Lighted and Ventilated.	7 Number and kind of Apartments to each Family.	8 Have they through and through Ventilation.	9 Dwelling Rooms: General condition, Cleanly or Dirty. / Average Cubic Space per Occupant.	10 Bedrooms, average cubic space per Occupant.	11 Are Slops and Garbage thrown into the Street.	12 Water Supply.	13 What Causes of Impurity of the Air on or near the Premises.	14 Sections of Tenement-House Law violated.	15 Nationality of Occupants.	16 Occupation.	17 Prevailing Diseases, and at what time in the year.	18 What Contagious Disease in House at time of inspection.	19 Ratio of Sick to Healthy at time of Inspection.	20 Average Rent paid per Month: $ / Cts.

The above statistical tables show the grouping and total of mortality and the causes of death in all the tenement dwellings in the city of New York for the year 1873: also the total and relative mortality in the several wards, and present the death-rates as they range from 33 in 1,000 inhabitants in the First Ward down to 16 or 17 per 1,000 yearly in the best drained and most healthful wards in the heart of the city.

In the summary of tenement mortality it appears that 14,109 deaths occurred in 8,856 tenement houses; that in one house 11 deaths were reported, in two houses 10 each occurred, in six 9, in five 8, in sixteen 7, in thirty-seven 6, in a hundred and nineteen houses 5 deaths each and so on to the total 14,109 deaths.

Records of sanitary inspection and the official orders and works of improvement that issued thereon show what *immediate* application such records of mortality may have in the aid of officers of health.

Not only are particular houses, blocks, areas, and streets susceptible of separate study in this way, but whole districts of a city or State, and separate classes of population should be so studied. Already in England the sanitarily improved districts are separately studied for new and more favorable rates of life assurance. Dr. Farr's new "Life Tables for the Healthy Districts of England," present this matter in a most practical way. Grouping 63 of the healthy towns and districts in England, and interpreting the death-rates at each age of the living inhabitants, and comparing with birth-rates and yearly increase of population, "the chance of life" in those districts is found to be vastly greater than that of the average population of the whole country. The concrete fact in regard to this matter is this: "Persons in the healthy districts of England who reach the age of twenty years, will, upon an average survive $43\frac{45}{100}$ years or to the age of $63\frac{45}{100}$, while in the general average chance of life for the whole of England the persons who reach 20 years of age will only survive 25.82 years or to be 45.82 years old.

Now the fact is readily ascertained by any competent health commission, that has authority to order and supervise sanitary improvements, that the adoption of efficient sanitary measures has a sure following of reduced death-rates. But the certainty and degree of such reduction will depend upon the thoroughness and fitness of the means adopted. Hence the continual observation and study of the causes and circumstances of deaths and especially of the prevailing diseases and the sources of depraved and enfeebled bodily conditions, are important requisites of correct sanitary inquiry and of proceedings in health measures.

Such are some of the public uses of Vital Statistics.

VITAL STATISTICS OF DIFFERENT RACES.

By Edward Jarvis, M. D., of Dorchester, Mass.

[In connection with the subject of Vital Registration, mention was made at the Health Conference of the valuable contributions by Dr. Jarvis, a member both of the American and of the British Social Science Associations, to the Statistics of Mortality. It may not be out of place, therefore, to print here an unpublished address of Dr. Jarvis, made at the General Meeting in Boston, May, 1873, after the reading of Professor F. A. Walker's paper on the Census of 1870. Dr. Jarvis spoke without notes, and we print from the phonographic report.]

Dr. Edward Jarvis. There is much in race. The races differ more than we imagine. The amount of vitality, or what the statisticians call "viability" (the chance of life), is much greater in some races than in others. There is a difference among various races in the proportion of births to marriages, and in the proportion of births to the whole number of people; but there is a greater difference among these races in the probability that a certain number of births will survive to mature age, than there is in the proportion of births. I had occasion, within a few years, to look at that matter carefully. I took the life-tables of many nations, taking, say a million of births in each. The question was, How many children in a million will grow to mature life? Suppose a boy or a girl is a vital machine begun, which you wish to finish off so as to be in running order, how many of them will reach mature life in the various nations? In some fourteen nations, the records of which I have at home, I found that out of a million births, the Irish showed the smallest number arriving at mature life. I went still further. I wanted to see what the value is of these emigrants that come to us, on the supposition that we imported them as machines, mere working power; if we import 100,000 of each nation, how many years will they live between twenty and sixty? The number of day's works or year's works out of a thousand persons born, or out of a thousand persons imported before they are twenty years old, is the smallest in the Irish of any nation that comes to us. Dr. Farr began this calculation and I have carried it out more extensively; and I find that if a million children were born each year in the various countries, that million would maintain in Norway of Norwegians, and in Sweden of Swedes, a constant population of 48,000,000; in England, 40,000,000; in France, 34,000,000; in Ireland, 22,000,000, and some hundreds of thousands. That is to say, a million children born every year, or a hundred thousand (more or less, whatever you say, but the same in every nation), will maintain a constant population of

less than half of the Irish, Hibernian, or Celtic race, than they will of the Scandinavian. Therefore it becomes a question, as a mere matter of profit, supposing we wish to import persons as machines, whether it is not better to import, first, Swedes, and Norwegians (Scandinavians), next, the English; next, the Belgian nation, and then the French, before we import the Irish? It is simply a matter of calculation, a matter of numbers. I took these figures from the Irish and English life tables, from the Swedish, Norwegian, and the rest. I am sorry that I have not the German life tables, but I think I should be borne out in saying that Germany and Saxony will come higher (certainly as high) than the English, in the matter of vitality, and next to the Scandinavian nation; much higher than the French, Belgian, or Irish.

I have been a student of the census for many years, sometimes painfully so, almost always joyously so, whether profitably so or not I cannot say. I have in my possession a complete set of the censuses of the United States, nine in number, and I think nearly all the State censuses. I have studied them carefully, and noticed their progress, and they have been improving from time to time, growing better and better; and I must say with satisfaction, that while this improvement has gone on from the beginning, the greatest advance in the value of the censuses of the United States has been from the eighth to the ninth.

But I fear we have not always got all the children in the early ages. I believe our censuses have been as correct in this respect as elsewhere. I have now in my office four French censuses, wherein I have found apparently a very great deficiency in the number of children under one, two, and five. I came to that conclusion in this way: Take the reports of the French Bureau, which I suppose to be the most correct, because the law of France requires every child that is born to be presented to the chief of the commune or town a few days after its birth, when it is recorded. There can be no more children recorded than are actually born and presented, and probably this includes all births. I have these accounts of the births in France, going back fifty years. Now, take the census for, say, 1861; if you compare the births of the year next preceding (1860), with the number of children under one year old, you will find there is apparently an enormous mortality among infant children. Comparing the previous year, 1859, with the children between one and two, you find a similar deficiency. Comparing the children under one with those who are five years old, five years later, in the next census, you will find that instead of apparent deaths, there has been an apparent increase. The children, instead of dying, multiply as they grow older. Comparing the numbers under five with those in the next census between five and ten, instead

of dying, I have found that they have multiplied. Comparing the number of children under five in the census of 1850, with the children, boys and girls, between ten and fifteen in 1860, in this country, I found that instead of any decrease there, instead of any deaths, there had been an increase, apparently. As we have in olden times an account of persons born a hundred years old, so here were children born at least ten, eleven, twelve, fourteen, or fifteen years old. And this was an exact comparison, because these children between ten and fifteen, in 1860, were simply the same persons who ten years before were under five. There was no addition by foreign immigration, because that had been excluded. With a labor which cost a clerk of mine almost a month's time, and more than two thousand calculations, I was enabled to exclude from the census of 1860 all that had been added to this country during the previous ten years; hence this was a comparison of the same persons under five in 1850 with those under fifteen in 1860, and they were increased, according to the census.

Now no one would suppose that any persons would get into the census who did not exist. Each census was taken by name, by description, age, and sex, and with some other facts. It cannot be supposed that there were more set down than did actually exist between ten and fifteen years of age, in 1860; but it may very easily be supposed that children under five might have failed to be reported. And so it was in the four censuses of France. I compared the United States census of 1860 in the same way, — the children under five with those between ten and fifteen, and I found a similar deficiency, but not so large. The census of 1860 reports in one of its classes the natives, and of course it must be those who were born in this country. It includes no foreigners. I compared the number which I had in 1860, excluding the foreigners under five, with those, and I found a similar apparent deficiency in the numbers for 1860.

Now this discrepancy is very easily accounted for. Our census marshals are not always men of the best discipline, nor men the most persevering in their inquiries. The marshal has as many houses to call at as he can visit in a day, and he gets the best information he can. He goes to a house, and if he finds the father or mother in, it is very well; he gets the best possible information. If he finds a daughter or a son, there is good authority. But perhaps the immediate members of the family are all gone, perhaps there is nobody at home but a servant, — a negro, or Irishman, or German, or some other foreigner, who, perhaps, has been but a few days or months in the family, and knows very little about it, and he gives but a very imperfect account. Oftentimes the marshal does not clearly understand what is said, but he puts down such facts as he gets. There are various other causes

by which, here and elsewhere, we fail of perfect returns of all the facts that actually exist.

I made up a report upon the United States mortality in 1860, for which the tables were sent to me from the Census Bureau at Washington. They had gone through several hands. There was the report of the family; there was the report of the marshal who received the statements and sent them on to Washington, where the returns were abstracted and digested; and finally they came to me in large sheets, showing the number of persons who died in each month, of each disease, of each age, in each State in the Union. My clerk who worked on these tables would ask me such questions as these: "Can a woman sixty years old die of teething?" It so appeared. "Can a person under one year old die of *delirium tremens* or drunkenness?" There were quite a number of those cases. "Can a person in Texas die of freezing in July?" That was presented in the record. "Can a person in Maine die by sun-stroke in January?" There were such cases. Now, probably in those cases the marshal misunderstood, or did not stop to think. He misunderstood the month in some cases, the age in others; but he put down exactly what he heard. He took no time to stop and think. These reports all went to Washington, and were transcribed. In the last census, there was sagacity enough to see that all these things could not be true, and such errors were eliminated or corrected, so that they do not vitiate the results. From the imperfection of human machinery there is very great danger of having such mistakes, so that we do not get a perfect record of the facts as they exist; but I must say that I have found no such mistakes in the last census, no such want of fullness and accuracy.

Another matter spoken of this afternoon was the falling off in the increase of population during the war. I have made a calculation for the Statistical Association, within a month, of the deficiency of births in Massachusetts, Connecticut, and Rhode Island during the war. I found that the proportion of births to the population in Massachusetts, comparing only the four years of the war with the six years previous, fell off twenty and a half per cent.; not the whole number of births in proportion to the whole population. And after the war, the births increased in the next five years but about twelve and a half per cent., showing that families had not then got restored to their normal position. In Rhode Island and Connecticut the result was similar. I am sorry that I had not the birth records of the other States, but there were no other reliable records. Massachusetts is the most complete and the most satisfactory, because the nearest to fullness in the reports of births; perhaps as full as we shall ever get; but in Connecticut the records are not so perfect; in Rhode Island they come nearer to Mas-

sachusetts; in Vermont they are not perfect; in Michigan they have but just begun. Now in Massachusetts, so far from the seat of war, with comparatively little disturbance or suffering at home, the destruction of young people who would have married, the division of families, etc., had been such that there was this falling off of one fifth in the births during the war; and I have no doubt it was the same or worse in all the States.

There is another element in this matter, which is a universal element. In all times of distress, when the population is disturbed, and the peace and quiet of the home interrupted, when trade, when labor, when manufactures are taken out of their ordinary way, when incomes are diminished, and the means of support of a family are not easily obtained, there is universally a diminution of marriages and a decrease in the births of children. Still further, and still more painful, there is always a lower chance of life for the children. Whatever produces distress, diminishes vitality and the means of supporting vitality. That acts most powerfully upon the poor, and upon little children. Look at the records of Sweden for one or two hundred years. When Sweden has had periods of famine, you find during those periods of famine a diminution of marriages, a decrease of births, and increased mortality. I have found the same in England. Wherever you find the records of the means of living, and at the same time the records of the marriages and births, and of mortality, you find this result, — whenever social prosperity goes down, there is always a diminution in the increase of life, and a diminution in the continuance of life, especially in those who have the weakest constitutions. Now, how far this operated at the South, where the war was present, and society was almost universally broken up, where marriages must have diminished, where families were divided and scattered, I do not know; but I think it must have been vastly greater than in Massachusetts.

Another point. Speaking of the increase of foreigners in this country, I found, from looking over the number of foreigners who came to this country from 1790 to 1870, and comparing them with the number of persons of foreign birth found living in this country in 1850, 1860, and 1870, that the mortality of the foreigners was much greater in the several ages than the mortality among the people of New England, and probably of New York, and all the Northern States. I found that, up to 1850, the force of mortality resting upon the foreign population here was seventy-nine per cent. greater than it was upon the natives. That is, taking the whole; it would be still greater as compared with our own New England population. In other words, as fast as one hundred natives of this country died, one hundred and seventy-nine foreigners died. Taking the foreign population that was

in this country in 1860, and adding those that came year by year, calculating from the time they were here, — taking the number of those that by computation should live, — the mortality among foreigners was four per cent. as compared with a native mortality of two and a quarter per cent. That is, the rate or force of mortality showed that disproportion; I know not why it is, but it is so. I remember seeing an article some years ago which was read before the British Association for the Advancement of Science, to the effect that our climate was so destructive that it carried off all the foreigners; that the duration of foreign families in the country was only three generations; and finally, that if America was not continually supplied from abroad by emigration from foreign countries, in three generations we should all be swept off clean, and no trace be left that there had ever been anything but Indians here. Nobody believed this, except perhaps the writer, who seemed to think that we were indebted to the new foreigners for our population. Now it is the new foreigners who die. Their children will live longer because they have better constitutions. Somehow or other, I do not know how it is, but the old families are the most enduring, most persistent, and have the longest life.

THE SECOND SESSION OF THE CONFERENCE.

On Friday, May 22, at 10 A. M., there was held a joint session of the Boards of Health and Public Charities, at which but one paper was read, the session being mainly occupied in discussion and in the consideration of the preliminary reports of the committees appointed at the conference of Boards of Charities on the Wednesday previous, of which mention has been made in the sixth number of the Journal. At the Friday's conference DR. STEPHEN SMITH, of New York, presided, and DR. HARRIS acted as Secretary. Dr. Smith opened the session by reading a paper on the "Powers and Duties of City Boards of Health," in which he alluded to Dr. Harris's paper on Registration, and said that it is a fundamental duty of such Boards to organize a complete registration of the vital statistics of the City. It is such registration alone that can lay the foundation of permanent sanitary work, nor is it sufficient that it should simply give the total number of marriages, births, and deaths annually. It should furnish all those collateral facts and evidence which are necessary to a thorough study of the intricate and obscure questions relating to the social and physical well-being of the people. Coming to the subject of sanitary precautions, he said that most contagions may be warded off and restricted by the isolation of the sick. It is not too much to say that small-pox, scarlatina, and

other diseases may be tolerated or suppressed at will by such measures. Against small-pox, no intelligent physician doubts that any city may be absolutely protected. Measles and other such affections are not less susceptible of control by isolation and disinfection. Endemic diseases are mainly due to imperfect scavenging and defective methods of dealing with excremental matters, both personal and domestic, such as the decomposing refuse of kitchens, overflowing cesspools and privy vaults, cellar damps, etc. To discover and cause the abatement of these gross nuisances against public health, as well as against public decency, is evidently the province of sanitary officers. Their duties should also embrace the proper regulation of trades causing sickness, so as to protect the health of operatives, and the dwellers in the neighborhood who are subjected to deleterious gases that create sickness, or offensive odors which compel them to shut out from their houses the external air. In short, it is sufficient to summarize sanitary duties as follows: (1) Regulation of commerce and immigration that will prevent the admittance of exotic pestilences to the cities, either in the cargo or among the passengers. (2) Persons suffering from contagious diseases must be rigidly isolated, and (3) trade and business causing special forms of disease among operatives or among the people must be placed under such regulation as will effectually remove all causes and sources of sickness.

Health boards are required not only to study the bearing which all existing public works and all projected public improvements have upon the public health, but they must come down to the individual, and study the influences which affect his general health and tend to invalid him and shorten his life. These influences may be grouped as follows: First, drainage; second, food supply; third, water supply. A sanitary Board should, from its peculiar constitution, be the ablest and wisest authority in at least three departments — medicine, law, and mechanical engineering. Thus constituted, the community may safely commit to its care the varied duties and numerous trusts which devolve upon the guardians of the public health. In its connection with other Government departments it should always demand all such restrictions of their action as it may judiciously deem detrimental to the health of the community. Steps are being taken in the right direction in the formation of such boards in the larger cities, and not only is State medicine beginning to be recognized as an essential feature of municipal government, but there is a healthy tendency toward the selection of the best qualified officers for sanitary administration.

As no full report was made on Thursday of the extempore remarks of Dr. Bowditch, of the Massachusetts State Board of Health, in regard to the success of that organization, it may be well to cite in this connection, and in illustration of some of the points touched upon by Dr. Smith, a portion of Dr. Bowditch's address to the members of his Board, printed in their fifth report, for 1873. Dr. Bowditch then said: —

At the organization of this Board I endeavored to express in a few words some general views of the great and benign objects presented before us, and the correlative public duties that devolved upon us, by our appointment as members of the State Board of Health. I wished then to give my highest ideal of those objects and duties, and I then expressed my belief that we should not fail of doing some service to the people of Massachusetts if, with simplicity of purpose and single-hearted devotion to that purpose, we should pursue, slowly, perhaps, but steadily, the path opening before us. It is not my intention now to review what we have already done. I may, however, be allowed to say that the annual liberality of the legislature in regard to our reports, and the fact that the example of Massachusetts has been followed by several States of this Union, who have established similar boards, is certainly gratifying. It would seem that our example has stimulated others to a like course of action in regard to Preventive or State Medicine, as it has been sometimes called, because the improvement of the public health and the prevention of disease among the people is the object of both. This object has now occupied us for five years, and we can, perhaps, see more clearly its tendency and noble scope. We can also, perhaps, prophesy more decidedly than before the beneficial results that will accrue to mankind when the world enters heartily into its objects, and when similar boards have been formed, and have worked for many years in every civilized community.

Preventive or State Medicine is of recent origin. It has been the natural outgrowth of modern thought and resources, stimulated by centuries of suffering and by the sacrifice of multitudes of human beings. Modern thought, later and more scientific methods of investigation, and more rapid means of communication of thought and of action, have given this idea to the nations. It is true that Hygiene, or the science which would promote human health, has been discussed from earliest times, but commonly as applied to the individual man. The scientific study of the laws of disease as they affect large masses of men, and the voluntary efforts of great states to study those laws by means of boards of health, or of experts set apart for this special purpose, are strictly of modern origin. Hippocrates, wise as he was, could not, with the imperfect means of communication in his day, have inaugurated it. Moreover, in the earlier states, man as an individual never stood, in the estimation of his fellows, nor of the government, so high as he does at the present day under European or American civilization. Formerly his welfare was subordinated to that of the state. Now, the theory is exactly the reverse, and the state claims to have the tenderest interest in the welfare of each and every one, the humblest or richest of its citizens. Formerly, all persons believed, as many now believe, that prayer should be offered to the offended gods in order to stop plagues, famine, and death. But now, most persons feel that, although

prayer may avail much to enable an individual or a state to bear calmly some terrible calamity or to die bravely, if need be, in a great cause, it can never drive away fever, cholera, nor small-pox. It can never cure consumption, though it may help both sufferer and friends to bear it more patiently. To submit quietly to any remediable evil, as if to the will of Providence, is not now considered an act of piety, but an unmanly and really irreligious act. It is the part of error and stupidity which does not believe in the duty of studying into the physical causes of disease, and in at least endeavoring to crush out these originators of pestilence and of death.

Modern Preventive Medicine has been hinted at by Nature from the earliest time. Occasionally she has shown us how she can summarily strangle disease, and drive it forever from its usual haunts. The great fire in London, in 1666, burned up the greater part of that metropolis. With its sorrows, trials, and losses, it brought one of London's greatest blessings, viz. : the extirpation of the plague which had previously so often ravaged the inhabitants. Intermittent fever has ceased in certain parts of Great Britain and of this country under the influence of tillage and drainage of the soil. Till inoculation was brought from the East and taught to modern Europe, the physician could not mitigate small-pox. Jenner, led by Nature's teachings, substituted the milder disease of vaccination for the fatal scourge of small-pox.

Private investigations in Europe and America have, in these later days, proved that residence on a damp soil brings consumption; and, second, that drainage of wet soil of towns tends to lessen the ravages of that disease. We have been taught by Murchison and others that fevers are often propagated by contaminated drinking-water or milk. Our own Board investigations have proved that contaminated air may also cause it. Still more recently cholera has been brought, in its origin and progress, under law, and we know how we could probably prevent it if proper precautions against its origin were taken. A neglect of proper sanitary regulations tends to propagate this scourge, year after year, over Europe.

These monitions given by Nature and individuals as to our power of checking or preventing disease, have at last culminated in the fact that the state decides to use its moral power and material resources in aid of State or Preventive Medicine. England, in this respect, outranks all other countries. America, I think, stands next. This appears to me the general course of events hitherto in regard to public health. I do not mean to assert, however, that nothing has ever been done before by the state. On the contrary, the Parliament of Great Britain and other European States and the legislatures of our various States have at times spasmodically and tentatively, for centuries past, given powers to local town boards of health. They have, moreover, at times, devised important plans for the health of the people and for the prevention of the spread of certain diseases. But all these were trivial compared with the present position of England and of some States of this Union where State boards of health have been established.

With one accord I believe it may be said that the whole profession has cordially greeted the advent of State or Preventive Medicine. What, it may now be asked, will be the effect upon the public and the profession after two or three centuries of growth of the principles of Preventive Medicine? I look

forward with high hopes for the future of this young idea, founded as it is on the duty of the state to investigate the laws of all diseases so that, as far as possible, all shall hereafter be prevented. I think that idea cannot fail of making a stalwart growth. It may make many errors, but it must make yearly progress in the knowledge of the more hidden causes of disease.

In regard to the relation between State boards and local boards, which was a point somewhat discussed in the Conference, the following passage may be quoted from the last report of Dr. George Derby, the first Secretary of the Massachusetts Board, whose death, a few weeks after this Conference has deprived the Association of one of its most esteemed members. Dr. Derby, who was Secretary of his Board for five years, and had much to do with its work, thus speaks of the relation of the towns and cities to the State in sanitary matters: —

It is the wish of the Board to be informed at all times of the occurrence of epidemics in any part of the State, of the existence of any exceptional forms of disease, of unusual sickness or mortality, and especially to stimulate inquiry concerning the preventable causes of disease. Another purpose constantly kept in mind is, to persuade the people in the various towns to organize efficient health boards, of which one member at least should be an intelligent physician, and to support these boards in the fearless exercise of the great powers which are given them under the General Statutes. With these views, an extensive correspondence has been kept up with the towns and cities. We are very far, as yet, from being made acquainted with the condition of public health in all parts of the State, but each year adds to the amount of this knowledge. In some instances, when it was made known to us that unusual forms of sickness were prevailing in certain localities, a special investigation has been made.

A circular was issued in November, in which the following questions were asked of the correspondents of the Board: —

1. Whether any forms of disease have been specially prevalent.
2. Whether you can discover any cause for such prevalent forms of disease.
3. Whether such causes are, in your opinion, in any degree preventable or removable.
4. Are the local health authorities intelligent, vigilant, and efficient?

In reply to these inquiries, letters have been received from 154 towns. About half of this number reply to the fourth question, but as they are generally from small towns, where the selectmen are the board of health, and seldom concern themselves about health affairs unless small-pox makes its appearance, the information conveyed is not of much value. The remaining ninety correspondents speak of the boards of health of their cities and towns very freely, and for the most part we forbear to quote their remarks. More than half of the number are very uncomplimentary to the health authorities. No doubt can be left on the mind of any one who examines these letters that the boards of health of most of the cities and towns of Massachusetts have no idea of the responsibility which belongs to their office.

[Having been prevented from attending the Conference in May, Dr. Baker, of Michigan, has kindly furnished for publication a statement concerning the Board of Health's work in that State, which will be read with great interest, as showing how much can be done in a short time, — the period covered by Dr. Baker's paper being only twelve months. A valuable paper by Dr. Kedzie, of the Michigan Board, follows Dr. Baker's. We print it from the sheets of the volume for which the author furnished it, in Michigan.]

THE STATE BOARD OF HEALTH OF MICHIGAN.

By Dr. H. B. Baker, of Lansing.

This board began its labors July 30th, 1873. Its officers and members are named on page 216.

In an introductory address on its prospective work, Dr. Hitchcock — senior member, and afterwards President of the board, said: —

"We must be ready to point out the influence of the topography, geology, and climate of the various parts of our State upon the health of its citizens; the importance and intimate relation of drainage and sewerage to the health of families and whole communities; to call the attention of the people to the influence of various kinds of occupations, food, drinks, and clothing, as well as the structure of their public and private buildings, upon the development of certain forms of disease; and most especially to point out the vast importance to the welfare and the perpetuity of the State, of properly rearing, training, and educating the young; and to point out the nature and causes of epidemics, endemics, and contagious diseases, and the means for their prevention or eradication."

After pointing out the probable fact that the expenses caused by preventible diseases were greater than those of war, he said: —

"Here, then, is the work for this board to do: to educate the people in respect to the nature and causation of diseases, and the means for their prevention; to suggest appropriate legislation for compelling, when necessary, the use of those means, and to present arguments for such education and legislation, fortified and made cogent by facts, — well authenticated cases of disease and death directly traceable to ignorance, neglect, or disobedience of the laws of hygiene; and to make it possible by this work that many if not all of the lives and much of the treasure now needlessly lost to the State may be saved."

At the first meeting the board appointed committees of its members whose duty is to give special study to the subjects intrusted to their care. Each committee consists of a Chairman, and the President and Secretary of the board. The subjects and chairmen are as follows: —

1. Epidemic, Endemic, and Contagious Diseases — Zenas E. Bliss, M. D.
2. Sewerage and Drainage — Henry F. Lyster, M. D.
3. Food, Drinks, and Water Supply — Zenas E. Bliss, M. D.

4. Buildings, public and private, including Ventilation, Heating, etc. — Robert C. Kedzie, M. D.

5. Climate, general and by season of year, and as related to age of inhabitants — Henry F. Lyster M. D.

6. Disposal of Excreta and Decomposing Organic Matter — Homer O. Hitchcock, M. D.

7. Poisons, Explosives, Chemicals, Accidents, and Special Sources of Danger to Life and Health — Robert C. Kedzie, M. D.

8. Occupations and Recreations — Rev. Charles H. Brigham.

9. Education, — The relation of Schools to Health, the kind and methods of Instruction in use, and methods to be proposed — Rev. John S. Goodman.

10. Geology and Topography ; Influence on Health of Forest Trees and their removal, Shade Trees near Dwellings, etc. — Rev. Charles H. Brigham.

11. The Death-rate as influenced by Age, Climate, and Social Condition — Rev. John S. Goodman.

12. Legislation in the interests of Public Health — Robert C. Kedzie, M. D.

13. Finances of the Board — Zenas E. Bliss, M. D.

The board has published its First Annual Report, covering a period of only two months, being for the fiscal year ending September 30, 1873.

This Report contains; 1. Introductory statements; 2. The Law establishing the board; 3. Proceedings for its organization; 4. Introductory address by Dr. Hitchcock; 5. Officers and members; 6. Committees; 7. Statement of expenditures; 8. Circulars issued; 9. Statistics and remarks relative to local boards of health; 10. Three special papers — on "Illuminating Oils," "Poisonous Papers," and "Hygiene of School Buildings." The Report is made by the Secretary. The three special papers are all by R. C. Kedzie, M. D., a member of the board, and Professor of chemistry in the State Agricultural College. Each of these special papers has attracted attention in different quarters. Through the influence of the labors relative to illuminating oils, unsafe oils are not nearly so freely sold in Michigan as formerly. Prominent persons throughout the State have lately commented upon the noticeable fact that since the Report of the State Board of Health, containing the result of Dr. Kedzie's labors, has been published and freely distributed, the newspapers of the State have not contained so many accounts of horrible accidents from the use of kerosene oil, and there can be no doubt but valuable lives have already been saved thereby. In the late Annual Report of the State Insurance Bureau, the Hon. S. H. Row, Commissioner of Insurance, refers to this subject, in connection with the prevention of fires, as follows: —

PREVENTION OF FIRES.

"The State Board of Health, in their active efforts to promote the public health and safety, have done signal service to property holders and fire underwriters by their attempts to sustain and carry out the requirements of the Michigan law relative to the inspection and sale of illuminating oils. It is well known that the use of many marketable illuminating oils is very destructive to human life, and the fruitful source of accidents and disastrous fires. In the valuable paper prepared by Prof. R. C. Kedzie, on the subject of "Illuminating Oils in use in Michigan," published in the recent report of the State Board of Health, it is shown as the result of actual experiment that very much of the oil manufactured in and imported from the adjoining State of Ohio is far below the standard of safety established by the law of this State, and is extremely dangerous. He characterizes the fancy named "French Burning Oil," "Sunlight Oil," or any compound of naphtha or benzine, as a "death warrant in the hands of the user, which a stumble may convert into an executioner at any moment." The Professor closes by saying, "No oil is safe which will give off an inflammable vapor at the highest temperature ever reached in lamps, or which will burn when a flame is applied to its surface at such temperature. Oil that will bear the Michigan test of 150° is safe under all circumstances." The mass of evidence he submits, and the favorable comments of the press of this State and other States, cannot fail to arrest public attention, and, among other designed benefits, there must result a decrease of accidents and fires."

The publication and distribution of the article on poisonous papers has had the effect of bringing to light many cases of obscure forms of lingering disease in persons occupying rooms, the walls of which were covered with paper colored with arsenical pigment. It is becoming a matter of surprise, even to physicians who have given the subject most attention, to find how generally these poisonous papers are distributed, and how many cases like those heretofore supposed to be due to that indefinite and unknown influence called "malaria," recover on removal from rooms where the patient is subjected to the dust, and possibly other emanations, from arsenical pigments.

In the paper on the "Hygiene of School Buildings," Dr. Kedzie considered faults of construction, including inadequate provision of floor space, lofty school-buildings, necessitating stair-climbing, some of the evils of large schools, and, more particularly, the very defective methods of warming and ventilating school-rooms. It is too soon yet to estimate the full influence of this effort. School-houses are not readily torn down and rebuilt. It has undoubtedly had some influence on the construction of new buildings, and, in some instances, in modifying those previously erected. Michigan was already quite liberally supplied with school-buildings, which were perhaps as well planned and constructed

as those of any other State; but upon analysis of the air in about fifty of the most promising school-rooms in the State, Dr. Kedzie found that in none of them was there adequate ventilation, while in most, the proportion of carbonic acid ranged from twenty to forty-three parts in 10,000 of air, whereas it should not exceed eight parts.

If, as has been remarked by Dr. Bell,[1] "progress in measures for the protection of human life consists in exposing the consequences of their neglect," then Dr. Kedzie has in this paper contributed largely to progress in measures for the protection of human life from the danger of slow poisoning in school-rooms — a danger coextensive with our liberal educational system, and one threatening injury to the entire rising generation.

The board meets at Lansing on the second Tuesday in each quarter. At the meeting in April last, Dr. Hitchcock, the President, delivered his annual address, choosing for his theme a subject in the line of the legitimate work of the board, namely, the "Entailments of Alcohol." A few copies of the address have been printed in pamphlet form, and the paper will appear in the next Annual Report. At the meeting in July, 1874, Prof. Kedzie read a paper on "Artificial and Adulterated Table Syrups," giving results of numerous analyses of samples obtained from the most respectable dealers in the State. These analyses revealed some startling results, and it is doubtful if even the manufacturers themselves have any conception of the amount of certain of the dangerous impurities which these manufactured syrups contain. These analyses were undertaken by direction of the board, on account of the serious poisoning of a family through use of some of this syrup containing sulphate of iron and free sulphuric acid. This paper will appear in the next Report of the board. Dr. Kedzie also presented a second article on "Poisonous Papers," which will appear in the Report. Dr. H. F. Lyster presented a paper on "Drainage for Health," which will also appear in the Report. The Secretary presented a paper on "Epidemic Cerebro-Spinal Meningitis," which disease has prevailed in certain parts of the State during the last spring. It is, mainly, a statement of the facts collected relative to cases and coexisting conditions, and an attempt to study the cause of the disease, especial attention being given to an examination into the possibility of its being due to a fungus disease of grain used for food, as suggested by Dr. Richardson, of London. The paper will appear in the next Report of the board, which will be published as soon as possible after the close of the fiscal year — September 30, 1874 — and which, it is hoped, will contain other material in addition to that mentioned herein.

[1] In address, as Chairman of Section on State Med. and Public Hygiene, before Am. Med. Association, at Detroit, June 5, 1874.

Thus far, the members of the board have had reason to be gratified with the many expressions of appreciation of their labors, which, excepting those of the Secretary, are entirely gratuitous — a free gift to the people. The hope is cherished that the board may continue to be a powerful and well-recognized influence for good, and that its work for the citizens of Michigan may, in the language of Parkes, render their "growth more perfect, decay less rapid, life more vigorous, and death more remote," and thus realize the anticipations of its projectors.

NOTE TO DR. BAKER'S PAPER.

Under date of August 14th, Dr. Baker, Secretary of the Michigan Board, writes as follows to the editor of the Journal: —

"*Dear Sir:* In response to your request for information concerning sanitary matters in our State, I have written out a short history of our State Board of Health, inasmuch as that covers nearly all the sanitary work that has come to my notice. I must, however, make two exceptions; first, the work by the Section of Public Health in the American Medical Association, for which Professor Kedzie prepared a valuable report, which will probably appear in the Transactions of the Association. The second exception is the work of the Michigan State Medical Society, which has for several years been active in the cause of public health. The subject of Vital Statistics was urged long before I took it up, by members of the society, as long ago as 1859. At the meeting last June, Professor Kedzie presented a very valuable report on "Ventilation of the Houses of the Poor." The Transactions are now being printed. Dr. Kedzie's paper is illustrated by an engraving, a copy of which I inclose to you, and as I cannot yet send his paper, I have inserted explanations on the margin. Does it not show philanthropical spirit in the physicians of Michigan, that they inaugurate such labor in the cause of public health, and print and engrave, at their own expense, reports and illustrations such as this by Professor Kedzie?

"The physicians of Michigan are cordial in their support of the State Board of Health, which has depended largely upon their efforts for its organization.

"I am at present quite busy at work on the 'Vital Statistics of Michigan, 1871,' which is going through the press, — having been delayed by press of work in the hands of the State printer, and somewhat by my own time being so fully occupied with office work for the State Board of Health."

Dr. Baker subsequently forwarded Professor Kedzie's paper, which is given below, without the useful engraving alluded to.

VENTILATION OF THE DWELLINGS OF THE POOR.

By R. C. Kedzie, M. D., of the State Board of Health, Lansing, Michigan.

[From the Transactions (1874) of the State Medical Society of Michigan.]

The importance of ventilation of all inhabited rooms is becoming more generally recognized. Not alone the abodes of luxury and wealth require ventilation, but the dwellings of poverty and want demand even more careful consideration, from the fact that they are often overcrowded and frequently imperfectly warmed. If the man of wealth is poisoned and killed by foul air, the poor man is no less amenable to its destroying influence. By all means ventilate the rich man's hall; by no means leave the poor man's cottage deprived of this prime condition of health and life.

The ventilation of the dwellings of the poor is beset with many and serious difficulties; and foremost among these we find the element of cost. Say what we will about the abundance of pure air, that it costs nothing because all we have to do is to admit it freely into our rooms, without money and without price, the poor man *knows it does cost*, and no discussion of the subject which ignores this element of cost will be of any service to the class we seek to benefit. Perhaps the most favorable light in which we may expect the majority of this class to regard the matter of ventilation is to consider it an expensive luxury. When a man is fighting the wolf hunger from the door, he will naturally regard any diversion of his energy with suspicion, if not with hostility. To regard all money expended for securing fresh air as wasted, I consider a serious mistake, and if this class can be induced to try some economical method of ventilation, I think they will be so well satisfied that they will be willing to expend more money for more perfect ventilation.

Let us look a little more carefully into this element of cost. It is impossible to keep the air of any inhabited room pure without renewal by fresh air; but fresh air, to be conducive to good health, must be properly warmed. "Though foul air is a slow poison, we must not forget that a blast of cold air may slay like a sword."[1] The very instincts of men teach them to avoid cold in their dwellings, preferring foul air to chilly air. But the warming of a large volume of fresh air involves expense for fuel, at least. To introduce a regulated amount of air into a room, some apparatus for ingress and egress must be provided, and this involves expense.

Air cannot be made to enter a room without some provision for the escape of a corresponding quantity of air from the room. The ingress and egress of air must bear a constant relation to each other. But to cause a certain quantity of air to enter a room, and a corresponding quantity to leave the room, is

[1] Dr. R. Angus Smith.

not the whole of ventilation. The fresh air that enters the room may rapidly escape from the room without diluting the foul air to a healthy standard. The kind of air that escapes is as important an element of ventilation as is the quantity and quality of the air that enters the room. The quantity and the quality of the air that enters the room, and the quantity and quality of the air that escapes from the room must be equally regulated by scientific principles. This will necessitate the use of some motive power that shall at the same time control the influx and efflux of air. To provide an opening by which air may enter, and another by which it may escape, is not enough. A teacher in Massachusetts sarcastically remarked about a ventilator, that "the air was supposed to have some degree of intelligence, and to know that the ventilator was its proper exit!" Whether or not, in the physical millennium which development promises us some millions of years hence, the air will reach such a degree of intelligence that it will know where is its proper exit, it is certain that we cannot safely trust the degree of intelligence which the air in this State now possesses. But, as I have already stated, to secure this control of the motion of air will require the use of means, and this involves expense. In health, as in other things, "the destruction of the poor is their poverty." Pure air, adequately warmed, necessarily involves expense. One difficulty, therefore, in securing ventilation in the dwellings of the poor is this element of cost. No system of ventilation in such habitations that involves large expenditure can be successfully introduced in such dwellings simply from pecuniary considerations. Any system which we recommend for such dwellings must be limited by this unavoidable consideration.

Any system of ventilation must also be, as far as possible, self-acting. In the hurry and press of care and work, no time or thought will be given to the working of any complicated system which is designed to remove an evil which does not immediately and strongly appeal to the senses, as does the feeling of cold, for example.

The heat in most dwellings is badly utilized. The hot air is at the top of the room, where people do not live, and the cold air is near the floor where they do live. People who dread the cold, and at the same time seek to economize fuel, will not admit fresh and cold air at the floor-level merely to remove so intangible an evil as foul air. The stupefying influence of foul air blunts the senses to its presence, and the injurious effects are not immediately witnessed. The evil that arises from such foul air is none the less certain because it is not immediately perceived, but the senses are blunted to its perception, and the ill health arising from it is attributed to other causes. It requires a certain degree of intelligence in a person to feel the necessity of ventilation.

I will take the simplest possible arrangement of a dwelling, where the sitting-room, dining-room, and a kitchen of a whole family are all comprised in one room, heated only by the kitchen stove; perhaps it is also the bed-room of the whole or part of the family. The products arising from the breath of the occupants, the results of combustion in one or more lamps, the gases and vapors evolved by cooking and other domestic operations, with no attempt at ventilation in a room made as air-tight as possible, all conspire to make an atmosphere exceedingly unhealthy. What advice shall we give such a fam-

ily? Tell them to open the window and let in pure air? They will ask, "Would you freeze us entirely?" or sarcastically inquire if you were brought up in a barn. They know and dread the cold, and feel the imperious necessity of keeping warm; they do not feel the equal necessity of breathing pure air.

In the imperfect but economical ventilation which alone we may hope to secure under such circumstances, I propose to utilize the heat which so largely goes to waste in all such dwellings. In the simplest case we may use the layer of hot air at the top of the room to warm the incoming pure air. I would convert the waste heat at the top of the room into a useful product by using it to warm fresh air as it enters. The usual recommendation to place the ventilators at the top of the room, "because they will act better," is a waste of precious material in dissipating the warmer air. It is very much like the housewife throwing away the cream that rises to the top, while carefully preserving the skim-milk that remains at the bottom. If we must drink the skim-milk, let us enrich it by *stirring in the cream* instead of throwing it away.

I. Such a room will of course have one or more windows. Let us select the *sunniest window* for purposes of ventilation. I believe it is very important to bring the air in *directly from the sunshine*, if possible. Let the upper row of glass in the window be made double, with at least one inch space between the external pane of glass and the internal pane; cut away the lower inch and a half of the external pane and the upper inch and a half of the inner pane, or let the glass for this upper row be one and a half inches shorter than for the rest of the window, and arrange their free edges as I have indicated. The external air will enter at the bottom of the external pane, pass up between the external and internal panes and enter the room over the top of the internal pane with an upward direction, thus mingling first with the overheated air at the top of the room, and thus becoming warmed before it blends with the mass of the air in the room; and so persons are not conscious of a draught of cold air, which is the fatal objection to window ventilation.

So one may ask, Why not lower the upper sash and admit fresh air in that way? Because this cold air will flow downwards at once, and not be carried by any previously acquired ascensional motion to the hot air at the top of the room. In this case the occupants of the room, feeling the cold draught, will close the window and thus terminate that kind of ventilation. It is in vain to urge people to secure pure air by sitting in a cold draught. They will not do it if they can prevent it, and they ought not. But if pure air can be admitted without injuriously altering the temperature of the room, possibly they will accept the change.

Provision can thus be made to admit a certain amount of pure air into the room. The only provision for the escape of foul air from the room is through the stove and stove-pipe. This is still more unsatisfactory than the provision for admitting fresh air. If the chimney comes down to the floor, a single brick may be removed near the floor level, and thus a foul air flue be opened into the chimney. If a larger opening is made, it may injuriously affect the draught of the chimney, and thus contaminate the air in the room by smoke and the products of combustion in the stove, and the last state of that room be worse than the first.

By securing in this way an influx of pure air at the top of the room, and an efflux of foul air at the bottom, we secure *a* system of ventilation, — very imperfect, to be sure — but self-acting, cheap, and a decided advance on no ventilation.

II. My second plan involves more machinery, and of course increased expense, but I think it will give more satisfactory results. In this method I would utilize the heat of the stove-pipe, both for warming fresh air and as a motive power to remove foul air. Suppose the stove-pipe is six inches in diameter; surround this by another pipe twelve inches in diameter, resting at its lower extremity on the stove, so as to completely close this end of the shaft, and let a vertical diaphragm pass from the stove-pipe on opposite sides, passing outwards to the external pipe, dividing the space between the two pipes into two equal shafts. Where the stove-pipe is bent at right angles (at the elbow) to enter the chimney, cut away one shaft so as to leave the upper extremity of this shaft open; the other shaft is prolonged with the stove-pipe so as to enter the chimney. We will call the first shaft the fresh air shaft, and the second the foul air shaft. Let a pipe six inches in diameter pass from the side near the bottom of the fresh air shaft, behind the stove, to the floor, and thence horizontally through the side of the building to the external air, so that pure air may freely enter this fresh air shaft. Let a pipe six inches in diameter pass from the side near the bottom of the foul air shaft behind the stove, and terminate by an open mouth six inches from the floor. The waste heat of the stove-pipe will warm the air contained between it and its inclosing pipe, and this air will rise. The pure air in the fresh air shaft will ascend and discharge near the top of the room, constantly gaining temperature in its passage along the outside of the smoke pipe, and mixing with the hot air at the top of the room, will mingle with the mass of air in the room without producing discomfort from cold draughts.

The air in the foul air shaft will also ascend and be discharged into the chimney. But this air is taken from the room and withdrawn near the floor level, and hence the coldest air in the room is constantly discharged by this ventilating shaft. In this way we utilize the waste heat of the smoke pipe both for warming fresh air and for removing foul air. The same method of ventilating can be applied to any stove, but in this paper I have purposely confined my discussion to the ventilation of the living room of a family in most indigent circumstances. I am convinced that a room may thus be somewhat ventilated without any sensible increase of cost for fuel.

Both plans of ventilation which I have presented might be employed in the same room. Thus we might employ the double glass fixture in the window and this system of fresh air and foul air shafts in the same room, and thus secure still better ventilation than by either one alone. If any one objects that this system of ventilation falls far below the requirements of the case, I freely concede the justice of the criticism. I only claim for it this merit, that it will do something to correct a great evil, and that its cost does not place it beyond the reach even of persons in indigent circumstances. It is an effort to increase health and comfort in the dwellings of the poor.

State Agricultural College, Lansing, *April* 25, 1874.

THE MARYLAND BOARD OF HEALTH.

Immediately upon the organization of this, the latest established of the Health Boards, Dr. Howard, the Secretary, issued circulars, the first being dated May 7, 1874, informing the physicians of the State what investigations the board means to make this year. From these circulars we quote as follows: —

At the late session of the Legislature an Act was passed establishing a State Board of Health, among whose specified duties are the following: "They shall make sanitary investigations and inquiries respecting the causes of diseases, especially of epidemics, the sources of mortality, and the effects of localities, employments, conditions and circumstances on the public health; and they shall gather such information in respect to these matters, as they may deem proper. They shall devise some scheme, whereby medical and vital statistics of sanitary value may be obtained, and act as an advisory board to the State, in all hygienic and medical matters. They shall make special inspections of public hospitals, prisons, asylums, and other institutions, when directed by the Governor or the Legislature." The board respectfully ask your coöperation in this work. Should you be cognizant of any preventable causes of disease in your neighborhood, such as defective drainage or sewerage, improperly ventilated public buildings — hospitals, alms-houses, school-houses, etc., — the existence of contagious disease, or any other facts bearing upon the health of the community, the board will be pleased to hear from you, and, if deemed advisable, will have an inspection made and take steps to remedy the evil. Prompt information of the outbreak of any epidemic or endemic disease is desirable. The board are specially desirous of collecting all facts bearing upon the subjects of malarial and typhoid fevers and phthisis — their relations to conditions of soil and climate, vegetation, drainage, etc., etc., — their relative intensity in different sections and seasons. Any *facts* which you may communicate, as well as your *opinions*, will be acceptable.

It is the desire of the Board to establish a regular correspondence with every section of the State, and they will be obliged for a list of the names of all, both physicians and others, in your district or county, who take an interest in sanitary, or in statistical matters. If you will consent to act as a regular correspondent of the board, you are requested to communicate the fact, with your full address, and blank forms will be sent you; so that your labors will not be burdensome, but limited, if you so desire, to filling up the blanks and returning each month, or every three months. By collecting a large number of facts from different sources and seasons it is believed most important deductions may be drawn. In addition to this method of collecting data,

the Board hope to be shortly enabled to perfect a plan for a thorough registration of all births, marriages, deaths, etc., throughout the State. Do you think it practicable to have the Registration Act of 1865 effectively carried out in your county or district?

With the view of collecting information upon the subject of MALARIA, from the various sections of the State, the accompanying Forms are issued, for monthly returns to this office. In localities where malarial diseases are *very rare*, they may be used for Quarterly Reports, instead of Monthly. In order that all the conditions may be understood, it is desirable that you shall give, with as much accuracy as possible, a description of the field of your practice; for which purpose "Form No. 1" is to be filled in, and sent with your first Monthly Report. It will, of course, be preserved, and your subsequent returns will be studied in connection with it. It has been deemed best to confine the reports to a few of the more important questions relating to malaria; and, if the practitioners of our State will devote a few moments at the close of each month to recording, in these simple blank forms, the results of their observation and experience, it is believed very important deductions may be drawn from the collection, comparison, and systematic study through a series of months of the facts and opinions thus brought together. But little time and labor will suffice for you to fill out the blanks; your visiting lists for the month showing at a glance all the facts needed. It will be noted the *number* of your cases, deaths, etc., is not asked, but simply the proportional number of malarial to other cases; their percentage only, is needed for our purposes. It is requested that the answers be concisely stated. More extended remarks, either relating to the questions asked in the Report, or to other *facts* which may have arrested your attention, or your *opinions* as to the causes, pathology, treatment, etc., etc., of malaria, may be made upon a separate sheet, to accompany the Report.

E. LLOYD HOWARD, M. D., *Secretary State Board of Health.*

The forms referred to are as follows: —

FORM I.

(To be filled in and returned, by 1st of August, to DR. E. LLOYD HOWARD, *Secretary State Board of Health, Baltimore.*)

1. What section of the State is embraced in the usual limits of your practice?
2. What is the character of the surface of the country — flat, rolling, or hilly?
3. What is the geological formation; or character of the soil, subsoil, etc.?
4. Are there marshes, or water-courses, mill-ponds, etc.; and of what character and extent?
5. What is the character and extent of drainage, — both surface, and subsoil, — natural and artificial?
6. What is the character of the drinking water, — whether spring, pump, or running streams?
7. Are there any special causes, or predisposing causes, of disease, — as improperly located or conducted slaughter-houses, wet cellars, etc., — in the towns or villages?

8. In the past twenty years have malarial diseases increased, or decreased, in frequency or in severity, in your district? And to what do you attribute such increase or decrease?

FORM II.

1. During the month of 187 was the average temperature seasonable, or unusually high, or low?

2. Was there more or less than the usual rain-fall?

3. Was there more or less malarial disease in your section of country than is usual at this season of the year?

4. During the month of what was the proportion — per cent. — of *uncomplicated malarial* cases to all the other cases of disease *in your own practice?*

5. What proportion of these cases had *never before* had malarial disease?

6. During the month of what was the proportion — per cent. — of cases (to all the other cases in your own practice), in which the malarial element was seen to complicate, or modify, other diseases?

7. During the month of in your practice, which was the most common form of malarial disease, — whether intermittent, remittent, etc?

8. Did any of your malarial cases run into a typhoid condition? What proportion of them?

9. During the month of what proportion of your malarial cases terminated fatally?

10. During the month of could you form an opinion, in any of your cases of malarial disease, as to the influence of any local condition in causing the disease, — such as a marsh, a water-course, a stagnant pond, an obstructed drain, a wet cellar, deficient drainage, etc., etc.?

In response to these circulars, the Maryland Board is already beginning to receive important information.

ANIMAL VACCINATION.

STATEMENT OF DR. HENRY A. MARTIN, MADE AT THE GENERAL MEETING IN BOSTON, MAY 14, 1873.

[DR. SMITH, in his paper read at the Health Conference May 22, 1874, spoke of the protective power of vaccination. The Fifth Number of the Journal of Social Science contained a paper on Public Vaccination, prepared by Dr. F. P. Foster of the New York Dispensary, upon which, when read, another expert on vaccination, Dr. Henry A. Martin, of Boston, made some comments which seem to merit publication here, from the interesting statements therein. It will be understood that Dr. Martin and not the Association, nor the editor of the Journal, is responsible for these statements and opinions.]

Dr. Foster had said, among other things, —

The subject of vaccination, as being, beyond all comparison, the most efficient means of protection against the direst scourge which ever afflicted the human race, is always of paramount interest to the community at large. This interest is intensified whenever, as during the last three years, small-pox is extensively prevalent; and at such times, especially, it seems fitting that we should consider in what respects, if any, we have been remiss in the administration of this great blessing, and how we may enlarge and perfect its management. My experience in charge of the Vaccine Department of the New York Dispensary, during the last seven years, has brought to my knowledge many facts bearing upon the questions which arise in connection with public vaccination, and upon these I found my apology for appearing before you at the present time.

We are warranted in concluding that animal vaccination is a safe and efficient preventive of small-pox, and, as such, it is the duty of those charged with public vaccination to make use of its popularity to enable them to vaccinate the greatest possible number of people. . . . . Its disadvantages weigh but little against the popularity of the animal virus, whereby almost the entire community may be prevailed upon to submit to vaccination, and are more than counterbalanced by the certainty with which large quantities of animal lymph may be supplied at short notice. At a certain time last winter small-pox was epidemic in Buffalo, Boston, and Baltimore, besides numerous other smaller places, so that our institution was called upon to supply an unusually large amount of virus. Just at this time I received, from one of those cities, a telegraphic order for quill-slips sufficient for six thousand vaccinations. I sent the whole amount within twenty-four hours after the dispatch

was received. Can it be supposed that such an amount of humanized lymph could have been collected in so short a time without calling in the aid of unskilled assistants, and without an undue relaxation of that careful discrimination which should govern us in selecting our sources of vaccine?

Dr. Henry A. Martin said: I wish this matter had come up in some way so it could have been discussed at length by those who are capable of discussing it. There has been an immense number of facts elicited in the recent vaccination of the city of Boston, and a discussion of several hours could have been held very profitably, upon the facts that have recently come into our possession. These will be forgotten soon, and pass into the sea of oblivion with everything else. I feel under great obligation to Dr. Foster for his paper. I hope it will be published, for it cannot do anything but good. I subscribe to all the publications of the Anti-Vaccination League, and keep a constant order for every publication that is opposed to vaccination. They are written in a style to take the people; simply dealing in downright foolish assertions; and no matter how often they are disproved, they rise up again and again, and are never killed. The doctors, on the other hand, publish voluminous books with enormous rows of statistics, which nobody ever reads. If small pamphlets of three or four pages, giving results, should be published, — and not downright assertions merely — the true and absolute results of those piles of statistics, — they would be read, and would make an impression. But if men have to wade through a dozen pages of statistics before arriving at any results, such publications will be useless.

The statistics on this subject are indeed voluminous. I have small-pox literature comprising 1,500 titles, and I am within the truth when I say that not one gentleman in 5,000, in the medical profession, has ever heard of one in fifty of them. They are accumulating all the time; men pile up statistics, few ever read them. My attention to this specialty has led me to read them, and I think it may be affirmed with positive certainty (always allowing for the rare exceptions found to all general rules, and in medical matters more than in any other), that a child vaccinated in infancy with good matter from a heifer, either by animal vaccination, an original case of cow-pox, or good humanized virus, not too far removed from the cow, is absolutely protected until ten years old and almost absolutely until fifteen. I know there are plenty of cases, — I have seen them myself, — of children, four and five years after vaccination having the small-pox. I have investigated every one of these cases that came under my notice, as thoroughly as I could, and when I could get at the facts (and I generally could), I found that the vaccination was not a good one; it was one of the innumerable cases of spurious vaccination which exist in this commu-

nity in consequence of the ignorance and carelessness of the medical profession in what they consider a trifling and unimportant matter. Just as Shakespeare is beyond all other poets, so is vaccination beyond any other duty of the physician.

During the last seventeen years I have received 35,000 letters from physicians, nearly half of them during the last two years, and the monstrous prejudice and ignorance that is shown by many of these men is one of the most shocking signs of the times in the medical profession. Men who had been in practice twenty or thirty years, would write and ask me questions that they ought to have known the first week they were students. I have known hundreds of them to vaccinate with matter that they got they did not know where; with some scab that came from some dealer; and with that they would vaccinate a person who had been already vaccinated more than once. That would result in a miserable, imperfect, spurious vesicle; and from that they would charge hundreds of points, and perform hundreds of vaccinations. My experience leads me to say, — that of all the people vaccinated once in the United States thirty per cent. might as well not be vaccinated at all.

I have but one objection to find with Dr. Foster's paper, and I have found it with other papers he has delivered, — that he does not mention the fact that I introduced animal vaccination into America in September, 1870, having sent an agent to Paris expressly for the purpose of investigating the whole matter and bringing me all the published documents and information on the subject that was attainable. He did so, and had every facility furnished him by the French Government. He brought all the publications and autograph letters from various gentlemen, and arrived here in September, 1870. I would premise that, perhaps seventeen years ago, after consulting Dr. Ware and Dr. Channing, and a number of other gentlemen then eminent in the profession, I went into the specialty of preparing vaccine. I had become a great advocate of the humanized vaccine, and was an opponent of the animal vaccine; when my agent went to Paris, I sent him an account of the large number of inquiries I had received. My full conviction then was, that after I had tested the animal vaccine I should find it in nowise superior to what I was using. I vaccinated three heifers, and tested it on children. The first series of experiments I made convinced me, as far as one experience could, of the infinite superiority of the animal vaccine to the humanized, as shown in the perfection of the disease, the development of it, the size of the vesicles, etc.

I would say that Dr. Foster obtained his supply of virus from me; ten weeks after I had introduced the virus I sent him supplies, with

long letters of direction, and expressed great gratification at having so able a colleague in the prosecution of what I considered a very important matter. In his first publication Dr. Foster acknowledged this; since that, he has never mentioned my name. The National (Government) Vaccine Institution in London, is the most famous in the world; it publishes reports annually, and its boast is, in one number, that it issued in a single year 263,000 points or charges to the people of Great Britain and the colonies. From my establishment, having no claim to any such celebrity, we issued during the year ending the 1st of February, 1873, 384,000 points of animal virus. The city of Boston I supplied with 80,000; Washington with 60,000; Erie, Pa., with 35,000; Buffalo with some 8,000 or 10,000, and Dr. Foster also supplied them. I have also supplied each of the cities and towns in the neighborhood of Boston with from 2,000 to 15,000 points of animal virus. I sent it all out with a statement that it was impossible for us to tell the exact strength of the virus, when we sent it away; that this could only be ascertained by testing it; that the virus from one heifer would be less vigorous than that from another, and the only remedy I could suggest was the offer of replacing all virus which was properly complained of. Now and then a heifer would afford virus that would give me trouble, and I would have to replace it, but the proportion was very small. Yesterday (May 13, 1873), my son took virus from the 383d heifer vaccinated since September, 1870. During the late epidemic we vaccinated 20 a week. These heifers are from 4 to 7 months old. Some are as good at a year as at 4 months. The result I have arrived at in a sufficient number of cases convinces me of the immense value of animal virus.

During the last winter, in my own office, with my own hand, I vaccinated more than eleven thousand people. I was engaged for four months, from eight in the morning until after nine at night, with little intermission. I kept a partial count of the number I vaccinated; for the first six weeks I kept a full count; and when I say more than eleven thousand people, I know that I am considerably within bounds. I, of course, saw all their arms; examined their scars as evidence of previous vaccination; and asked what questions were necessary. I found that in all the people vaccinated twenty years ago, and longer ago, the scars were generally clear and distinct, and indicated that they were vaccinated with matter that had not deteriorated. Those within the last twenty years — a very considerable proportion of them, certainly as many as 80 per cent., presented scars in no wise indicative of perfect vaccination. Now and then an arm presented itself that was remarkably good. But I almost invariably found that these patients were vaccinated in England or Germany, particularly in England. It was the terrible deterioration of virus, as seen in practice, that led me to go

into the specialty. I could hardly get a particle of lymph in the United States. I sent to Philadelphia, to New York, and even to Washington, supposing then that the government in this country might spend a dollar or two in such a matter. But I found there was no government establishment for supplying virus. I sent to various places in Europe, and from the British National Vaccine Institution got what was the best I had then seen, and used that for eleven years, before I began with the animal virus which I now exclusively issue.

A person well vaccinated once in infancy is absolutely protected until ten years of age, and almost absolutely until fifteen. I never saw, in all my practice, a case of what could be called varioloid or small-pox in its full developed form, in a child properly vaccinated under twelve years of age. I have seen a few such cases of varioloid, but there was evidence of want of perfection in the vaccination. I have seen a hundred cases of children with the small-pox who had nominally been vaccinated, but I found if they had been vaccinated at all that they were spurious vaccinations. A person vaccinated in infancy should be again vaccinated at some time after the age of puberty (which may be stated at the age of ten or twelve years). So far as my experience goes, any person so vaccinated after the age of fifteen, if the vaccination has taken, is protected for life, certainly until fifty years of age. If a person lives to fifty years, I should recommend a third vaccination.

I am not one of those who believe in the utter want of efficiency of the humanized virus. I know that good humanized virus is a protection from small-pox; but after a certain number of removes from the cow there is a change, a deterioration, a weakening of the virus, which can be absolutely determined and proved in a way to convince any medical man. After it reaches such a point it is certainly unprotective, or the protection is only for a very short period. I have been in the habit of saying to physicians, "I do not believe exclusively in the animal virus. You know what it is. You know it has not been through the human system. If it is carried through one or two, or ten or twenty perfectly healthy human removes I do not think it loses its protective efficiency to any degree." But then comes in the phantom of vaccinal syphilis. The popular idea is that an immense number of diseases are transmitted by vaccination. Medical men have to contend with all sorts of notions of this kind, for the most part entirely without foundation. The one black spot is vaccinal syphilis. When I introduced animal vaccination into this country, it was my intention to thoroughly investigate that subject, and then publish what I had to say about it clearly and plainly. I think I ascertained a good deal about it. I talked with various people and investigated the subject pretty thoroughly. Presently one, two, three, four, or five medical journals began to attack

animal vaccination; there were gentlemen inimical to me who thought they would prevent me from getting too much reputation, and I have therefore avoided writing about vaccinal syphilis for the present. One brings about him a perfect tempest when he says anything about this matter of vaccinal syphilis.

The Vaccine Institution of London, coming out with all the pomp and flourish of an enormous institution of very learned men, with a corps of some thousands of paid vaccinators, has announced over and over again that they never saw a case of vaccinal syphilis; that from all the prodigious quantity issued by them, not a single case ever occurred. Lately there was a gentleman who went to one of the stations of the Vaccine Institution of London, to get a baby from which he might vaccinate a number of patients. He went there and found some eighteen or twenty women with their babies, waiting to have virus removed, and got permission to take one of the children. He made a bargain with the mother of the healthiest child there, and from that baby he vaccinated fourteen adults and children. The vaccination all took. Good vesicles formed, and went through their course perfectly. The crust dried, and fell off, and left clear and perfect vesicular scars. In the course of about a week afterwards, in eleven of these patients certain appearances came on which induced the people to call on various surgeons, who treated them in various ways. None of the surgeons had any idea of what these appearances were. Of course they could not come from the vaccination, because all the officials in England said that could not be possible. But by and by Dr. Hutchinson saw one of these cases, and recognized it as syphilis, — these were chancres. He hunted them from one to another, until he found the whole eleven, and then reported them to the authorities of that institution. They commissioned him to attend those cases, which were put under his treatment. And the reports which are given by the Doctor show clearly and undoubtedly that they were syphilis; the whole eleven of them were tainted constitutionally more or less severely. The point I am coming at was that these eleven cases were treated by various medical gentlemen, not one of whom knew vaccinal syphilis when he saw it. I should like to know what sort of evidence on this point can come from men who cannot recognize a disease when they see it?

This child was followed up, and at last accounts was dead with syphilitic disease. Dr. Hutchinson went on; and, by and by, reported two more cases. But the memory of the cases he had reported before had got a little dimned; and the medical gentlemen were even more incredulous. One of the cases was a lady, who was so foolish she wanted to be vaccinated from the heifer matter. Her surgeon went out to find it but could not; he came back and said, "I cannot get any, but I have

matter from a beautiful child." With this he vaccinated her; and she had vaccinal syphilitic chancres. Then Englishmen got up and said, "We had better have a service of heifer vaccination." And one of the most distinguished gentlemen in London said that no man would be morally justified in the face of such facts, except in the use of matter which had been through the animal. Dr. Ricord long opposed this notion of vaccinal syphilis. But he is one of the few men who can yield when he is beaten. He showed that by giving up the theory of his life-time, like a man. He denied, in 1856, that syphilis was transmissible in this way, but in 1862 he began to doubt his theory, and in 1863 he declared that his mind was changed, and delivered a lecture to that effect.

During our war great difficulty was found in getting vaccine virus. The custom was, among the surgeons, to vaccinate a soldier with such matter as they could get, and from the scabs taken from this man's arm they vaccinated the other soldiers requiring it. I was in the army for two years as medical director and staff surgeon, and had opportunities on a large scale to see the result of this sort of vaccination. Any gentleman who does not believe in vaccinal syphilis, could he have been in the army of the Southwest and seen thousands of cases of vaccinal syphilis, and hundreds of deaths from the occurrence of that taint in people reduced by army life, I think would have ceased to be skeptical.

Dr. Foster has spoken of the advantage that animal vaccination offers in times of vaccination panic. Such quantities of virus could never be supplied in any other way. During the height of the late epidemic I had, in Boston, at one time, ninety-six heifers. It was not necessary to have so many, but I was afraid I might run out, and I chose to have too many rather than too few. And with that stock I could have supplied, in six days' notice, twenty or thirty thousand points of virus very easily. And during the height of the epidemic I supplied every day from five to seven thousand points of matter.

I would caution my hearers against the fraud which has been carried on to a great extent by physicians who wished to save money. Dr. Foster has said the virus is expensive. It is, and must be. During the epidemic there was a great demand for "Dr. Martin's virus." Physicians were always asked whether they had it; and they always had it; but not more than half of them ever got it. There came to me a nice old gentleman from a town near Boston, and said he, "I have been buying a good deal of virus of you, I charge two dollars, and I thought I would come and ask you how all the other doctors are vaccinating with it and charging only fifty cents?" He gave me the names, and not one of them had a single particle of my virus at that time. That was before I had an agent, and when I knew every point

that went out. So I gave the gentleman a certificate that he alone had had the virus, which immediately satisfied the selectmen of the town in regard to his honesty. I have spoken about syphilis being transmitted. Of course that is impossible by matter that has only been carried through the cow. But if a case should occur in a person vaccinated by one of these dishonest persons, it would be no proof that that was the cause of it. It has been the practice of some gentlemen to get a few points and vaccinate patients, and then use the virus from them calling it animal virus. The moment it has passed through one system it is not animal virus, and is liable to transmit disease.

Erysipelas is another disease which frequently follows vaccination, and is supposed to be connected with it. But erysipelas may follow any wound, no matter how slight; from the puncturing of the ear for an earring, or from a slight burn, the size of a pea, on the leg of a child. I have seen repeated cases from scratches of pins and needles, and I do not think it is more apt to follow vaccination than a simple wound. During twenty-nine years' extensive practice of vaccination I have seen, in my own practice, nine cases of vaccinal erysipelas, properly so called, that were all let alone very carefully and that all recovered. I have been aware of some cases, actively treated, that died. I think a large proportion of those that died, died from the treatment and not from the erysipelas, which is not a dangerous disease, if properly let alone. But a remarkable thing, and one which I did not expect at all, is that in all the vaccinations made with my matter, not a single case of erysipelas has been reported; and yet, during that time, I have been aware of nineteen cases of vaccinal erysipelas occurring in the immediate vicinity of Boston, three of them fatal. In my own practice I have never seen a case of erysipelas in any form following the cow-pox vaccination, and I have made ten times as many vaccinations with it as with any other.

Dr. Foster alluded to another very interesting matter, of immense importance to the public, the fact that a person may be perfectly protected by the first vaccination and afterwards get the disease and get it fatally. I have seen in the army particularly and also in civil practice, a great many cases illustrating that perfectly. One such occurred last winter, which will illustrate the matter very well. Dr. W. has had an enormous practice in small-pox, and made it a specialty during the epidemic. I asked him, when he had a case of hemorrhagic or black small-pox to let me know, for I wanted to see it. In a few days he came and told me a neighbor of mine had it. This man had been a physician in early life, but was now a clerk in a drug store. Six weeks before his death, one of the public vaccinators called in and wanted to vaccinate him. He replied, "I have been vaccinated, I have two

enormous scars on my arm. I am a physician, used to practice medicine, and have been exposed to small-pox again and again," and he was not vaccinated. Five weeks afterwards he was taken with headache and could not come in to business. He sent for a physician who did not recognize the disease for four days. He had undoubtedly been exposed over and over again and had been perfectly safe, but his protection passed away. I have known two men who have been in a small-pox hospital, who refused to be vaccinated and who got the disease.

Dr. Foster alluded to the practice of applying more vesicles in vaccination, to make up by number of vesicles for the want of intensity. I think that is a very poor remedy, but it has some efficacy. Four or five vaccinations with deteriorated matter are better than one, but very far inferior to one with pure lymph. During the twenty-nine years of my practice, I myself made it a habit to make from three to five vesicles. After the first year of my practice, I have always lived (with the exception of two years in the army) in one small neighborhood. Owing to the circumstances connected with my preparation of virus for seventeen years, I have made a large number of vaccinations. And I state here, as evidence of the protective efficiency of vaccination, that of all the people I have ever vaccinated, not a single case has come to my knowledge of small-pox.

No committees consisting of members of the Board of Health were appointed at this Conference, nor was any action taken in regard to the calling of any future Conference, it being understood that the officers of the American Public Health Association were in communication with Boards of Health throughout the United States, and would invite their members to a conference whenever it might be deemed advisable. The members present all took part in the discussion of the questions raised, and several of them, as will be seen in the subsequent pages, joined in the discussion of the papers on sanitary topics read at the General Meeting. Before adjourning on Friday the joint Conference passed a resolution which was also adopted in the General Meeting, recommending the appointment of State Boards of Health, and the establishment of thorough systems of registration in all the States in which they do not now exist.

THE SANITARY PAPERS OF THE GENERAL MEETING.

After the adjournment of the Health Conference on Thursday, the afternoon session of the Association was devoted to papers on Sanitary subjects. The former president of the Metropolitan Board of Health in New York, Jackson S. Schultz, Esq., who presided, said, upon taking the chair: —

I do not know why I should have been selected to preside at this session except that I was so unfortunate as to be at the head of the Health Board of this city a few years ago. The legislation then begun on sanitary subjects was felt to be a delicate matter and what was done must be either a success or the beginning of a failure through the country. I had some knowledge of the butchers of New York, and was selected, I think, for that reason. Inasmuch as there were three hundred slaughter-houses scattered through the whole city, and as it was desirable to concentrate them, and doubtful whether this could be done, I was put on the work to see what could be done. It was not attemped to accomplish anything by force. We had all the law we needed, but it was deemed expedient to treat it as a case of doubt — kindly — and two years were occupied in the work. I have been applied to by other health boards to tell how it was done. Well, I have been unable to tell succinctly; it was done by pleading, by prayer, by solicitation, but never by over-harshness, though we were accused of harshness and were fought. I had seven hundred injunctions on me at one time. The courts were unfriendly. With coöperation from the police and the courts we could have done the work in six months. Now, our Board of Health, I am glad to know, is sustained by the courts and the police. Our work as finally done gave entire satisfaction to that strong, willful, unruly class, that has been a nuisance through all time — the butchers. They have none of their unkind feeling left, but feel that they were served without knowing it. No city in the world now has a better meat supply than New York. What we must have here is not a Paris abattoir, but a New York abattoir. We live in a country where everybody thinks for himself — and sometimes for his neighbors. But so far as the health of the city is concerned, our abattoirs though not so neat or extensive, are not a whit behind those of Paris. They are good economists in Europe, however: we throw away more money than they make, and we waste more in the city of New York than the same population consumes in modern Europe.

After the allusion to his own experience, the Chairman spoke of the importance of the topics to be presented at the afternoon session, and commended each of the speakers to the attention of the audience.

The order in which the respective papers were read will not be followed in printing them, but the first place will be given to the Report from the Department of Health, prepared and read by Dr. D. F. Lincoln, of Boston, Secretary of the Department.

A REPORT ON SCHOOL HYGIENE.

Read May 21, 1874, by D. F. Lincoln, M. D., Secretary of the Department of Health.

Having been requested to prepare a Report upon the subject of the Health of Schools, for presentation at this Meeting, I have thought it best to arrange what I had to say in accordance with a list of topics which has been drawn up by the Department of Health, and which covers, or nearly covers, the whole of the ground in question. Some of these topics have been assigned to certain of our members, for original investigations and reports. If possible, we design to secure such investigations, by competent persons, upon all of the points here given, with a view of presenting the united results to the public at some future time; of which due notice will be seasonably given, in order that all interested in the health of schools may be able to take a personal share in the discussion of what we have to present. The list of topics is as follows: —

1. Heating and Ventilation.
2. Light — and condition of the scholars' eyes.
3. Seats — and deformities traceable to them.
4. Architectural Plans.
5. Apparatus employed in Instruction.
6. Gymnastics.
7. Condition of Nervous System.
8. Organ of Hearing.
9. Organs of the Pelvic Cavity.
10. Drinking Water.
11. Sewage, and Water-closets.
12. Commissions for Scientific Inspection of given School-areas.
13. Project of a law, establishing the office of Medical Inspector of Schools.

1. The air furnished for the use of the school-room ought to be heated in some way before it is brought into the room; it should not be roasted, so to speak, but should contain sufficient moisture. As regards the way of getting rid of the air, when polluted and deprived of its oxygen, it remains an unsettled question whether we ought to employ suction to withdraw the air, like the suction exercised by a chimney, or whether we should simply force warm air into the room and trust to its

elasticity to force its own way out by cracks in the windows or special openings in the walls. It is, however, certain that good ventilation must be expensive, for two reasons: First, that when impure air is expelled, we expel with it a great deal of heat, which is for the most part absolutely thrown away; there is no help for it; it must go up the chimney, or out of window, and the sooner the better. Second, *adequate* ventilation in a *crowded* room implies a dangerous amount of draught of air; and there is scarcely a public school-room in existence that is not so crowded that the attempt to bring in enough fresh air would be improper, because perilous to the pupils' health. For this, the remedy is only to be found in placing fewer scholars in one room; and if you do this, you have to build more rooms. But it can hardly be necessary to remind you, that expense incurred in improving ventilation will prove a good investment, if it saves your children headaches, indigestion, sleepless nights, listless days, coughs, and the disposition to take cold, pale cheeks, and poor appetites.

I will not delay you with statements about carbonic acid, and the other chemical ingredients of pure or impure air, but will pass on to some of the other topics.

2. It is well known, from foreign sources, that school-work is often bad for scholars' eyes. The best-known series of observations upon this point comes from Dr. Cohn of the Prussian town of Breslau. He has found that near-sightedness increases in a rapid ratio, proportionally with the advancement of the pupils in their studies. Very young children in school have little or no trouble; while of the oldest scholars in the high schools more than one half are near-sighted. The causes of this difficulty are various; among those susceptible of a remedy the following may be mentioned:—

(*a.*) Badly printed text-books.

(*b.*) The use of so-called German text and Greek type.

(*c.*) Badly lighted rooms.

(*d.*) Light coming from in front, and so dazzling the pupils' eyes.

(*e.*) Too sombre or too brilliant coloring of the walls of the room.

(*f.*) Desks which are too high and bring the book close to the eye.

(*g.*) Desks which are too low, and compel the pupil to stoop over in reading, or writing more especially, whereby the blood is made to gravitate to the head; the pressure of the collar upon the neck of course makes matters worse.

(*h.*) Over-heated rooms make the face flush, and add decidedly to the evil effects of all the above causes.

(*i.*) Injudicious selection of the hour for out-of-school study; for example, when pupils in boarding-schools are expected to study by lamplight in the morning.

Not one of these is in the least an imaginary cause of harm to the eyes. All are important and real. But doubtless there are other reasons for the fact that the Germans are a spectacled nation; reasons which I must confess that I do not fully understand. Taking our own schools at large, it is certain that no such deterioration of vision has *as yet* occurred among the children. Observations upon this point are very few among us. But I think I may safely say — and appeal to you for confirmation of the fact — that near-sight has begun to prevail very largely among those families in our own country, in which the children, for a generation or two, have been thoroughly trained in studies which are *not mere accomplishments*, as German, Greek, and mathematics. If my hearers can refute this statement, I should be very glad to be convinced of its incorrectness.

3. School seats are bad when the scholar can stand up between the desk and seat; because, in such a case, the scholar in sitting has to bend forward very much in order to reach his desk. It is necessary to bring the lid of the desk somewhat over the edge of the seat; it is also a good plan to make the lid in two pieces, so that the near piece swings up on hinges, furnishing a book-holder, when not used to write upon.

Seats with too little support, or with an uncomfortable support, give pain, increase the natural restlessness of the children, and tempt them irresistibly to put themselves in all sorts of bad postures, which give rise (especially in the case of girls) to spinal deformities.

One of the most important agents in counteracting this tendency — a tendency so serious, that it sometimes impresses itself on the forms of almost all the girls in a given school — is the frequent and judicious use of light gymnastics. For my own part, I would not confine the recommendation to light gymnastics, but would strongly advise that the chest should be developed by the parallel bars; and this more especially in the case of girls than of boys, for girls, in accordance with the laws of human society, have less chance to use their chests and arms than boys have.[1]

In regard to the whole subject of gymnastics, we expect next year to present a thorough report from a specialist in this department, a gentleman who forms one of our Committee. But I must dwell for a moment longer on this point, simply to add that a large school-yard, sheltered from public view, is doubly desirable, both as furnishing room

[1] I am much obliged to Dr. Frederic Winsor, author of a paper upon the Health of Schools in the last Report of the Massachusetts Board of Health, for the following criticism: "As an old gymnast I feel the great importance of close supervision of all the heavier gymnastics by a judicious and *experienced* teacher. The parallel bars need great judgment. — F. W."

for open air exercise, and as insuring an abundant supply of sunlight in the school-rooms.

7. In speaking of the effects of school life upon the nervous system, I would not dwell upon any positive disease — such as St. Vitus's Dance — which may be traceable to school work, but would beg to protest, rather, against the lamentable perversion and inversion of what ought to be the aim of all school life. For, whereas a proper amount of real study is a sure means of strengthening the health and improving the bodily development, we have given our children so much work, that the result of each day's work is immediate lassitude. And whereas the stimulus of mental energizing is one of the best tonics in the world, we have converted it by our system of prizes — of grinding, useless drill for examinations, of rank lists, of confinement to painfully dull subjects, to the exclusion of a right training of the pupil's powers of original observation; by all sorts of poisonous influences in the school-room air — to one of the severest strains upon the child's natural powers that could be devised.

In the recent report of Dr. Winsor to the Massachusetts Board of Health, it appears that a very large majority of the correspondents of the Board believe that the injurious effects of schools are mainly referable to their action on the nervous system.

It is not stepping beyond our functions as health officers to insist upon the incorrectness of the school routine now prevalent. The child's health depends much upon being allowed frequent change of posture; yet how commonly are the scholars kept for one or two hours at a time in their seats! His mental discipline, his efficiency in all that makes him a good pupil, is greatly injured by too long vacations; his bodily health, even, is not benefited by a two months' course of aimless idleness; yet the tendency of our day is decidedly in favor of long vacations. His *morale* is good, in direct proportion as he comes into friendly relations with his teacher; yet we know that in our great public schools it is next to impossible for a teacher, with forty, fifty, or sixty pupils, changed every year, to be to them anything more than an impersonation of fixed Fate and absolute Will. But it is necessary to pause here, in our enumeration of faults.

It is perhaps a new fact to most of you that there exists among school-teachers a form of deafness, largely due to the intense nervous strain brought upon their systems. The organ of hearing suffers, not from an "organic" disease localized in the ear, but as a mode of nervous exhaustion and breaking down. Similarly in the case of Charles Sumner, from the moment when his nervous system suffered that terrible shock, from injuries inflicted upon his head and spine, the functions of his heart began to be enfeebled; not because the heart was diseased,

but because his sum total of vital force was lowered, and the heart happened to be the organ where the strain was most felt. Our teachers are, all of them, exposed to the danger of breaking at the spot where their constitutions are weakest.

12. Among the projects we desire to see carried out is that of organized inspection of schools within given areas. Every important item in the health of the scholars and the arrangement of the buildings should be included in such inspection, and the results should be printed.

13. Finally, we have thought it worth while to charge one of our number, a member of the Bar, with the preparation of the form of a law, establishing the office of Inspector of Public Schools. Upon this point, the words of the Massachusetts State Board of Health may be quoted: —

"Every city should have a sanitary inspector and instructor of schools, who should be a physician.

"Every town board of health should have among its number a physician, whose duty it should be to pay a monthly visit to every scholar in town, and make a monthly sanitary report to the town and to the State Board of Health."

Note. — Since the presentation of the above Report, it has been decided to attempt to secure measurements of the height and weight of large numbers of the pupils in our public schools. The results of such measurements will constitute a contribution to vital statistics, but may also turn out to be of importance in throwing light upon the health of schools. — D. F. Lincoln.

HYGIENE IN SCHOOLS AND COLLEGES.

By Alfred L. Carroll, M. D., of New Brighton, N. Y.

Read May 21, 1874.

I need make no apology for urging before the Social Science Association the too long neglected claims of Hygiene, to rank as one of the most important branches of sociological culture. Social Science, as I understand it, embraces the systematic study of those elements of human welfare which an old nursery rhyme groups together, as the results of early going to bed and early rising; but even in that ancient legend you will remember that health is put before wealth and wisdom — and very rightly so, since wealth can hardly be gained or enjoyed without health, and, as to wisdom, it is no modern discovery that the *mens sana* depends upon a *corpus sanum*. It is scarcely too strong a way of putting it, therefore, to say that hygiene should have the road for all other human advances, commercial, intellectual, and I might even add, moral; for, as you are aware, the most competent observers are inclined to attribute habitual crime in many instances to physical degeneration, and we have ecclesiastical authority for the assertion that the form of a man's religious belief is intimately connected with the state of his digestive organs.

And yet there is no subject of which mankind at large is more deplorably ignorant than of this code of health. In our educational courses we lay great stress upon classical and mathematical studies which, however excellent as means of mental discipline, may not be of practical use in the after life of nine tenths of our pupils; we teach them something of the laws which govern the community in which they live, and of the principles by which business pursuits are guided; we establish special curricula to fit them thoroughly for special vocations; but most of them are allowed to escape from our hands without learning anything of the rules of their physical existence, knowledge of which is of the utmost practical moment to every human being, whatsoever his or her pursuit. With very few exceptions our undergraduate academies are content to leave hygiene as an esoteric mystery of purely medical doctrine, forgetting that the preservation of health is a matter which almost exclusively concerns the non-medical public, whose intercourse with physicians seldom begins until after violation of sanitary laws has in-

duced actual disease when the time for the "ounce of prevention" is past, and the "pound of cure" alone is sought. In fact, unless the world at large will adopt the Chinese custom of paying doctors to keep their patients well and stopping their salaries during sickness, the laity should be better instructed in this respect than their professional advisers. But I have met erudite scholars to whom the differential calculus was as easy as the multiplication table, and Demosthenes lighter reading than Congressional debates, who were utterly devoid of any idea as to the functions of their own organs or the physiological relations of nitrogen, carbon, and oxygen. It is to this lack of the rudimentary knowledge which every one should possess, that we owe more than half the mortality of the world, and a very much larger proportion of its sickness. To this are due the appalling death-rate of infancy; the slow devitalization of children in overcrowded, ill-ventilated schoolrooms; the crippling of operatives in deleterious trades; the myriad evil effects of sewage-poisoning, the generation and perpetuation of endemic diseases; the ravages of epidemic contagions; and, less directly, perhaps, but almost as surely, a great part of the intemperance and moral decadence which are as often the consequences as the causes of insanitary conditions among the poorer classes.

But apart from the prevention of specific maladies is the question of maintaining all the bodily functions in the best working order possible. Between perfect health and actual disease there lies a wide debatable border land, and it is herein that the teaching of personal hygiene should find its most fertile field. There are thousands of persons who are not ill enough to come under medical care, who have no pronounced disorder to which we can give a name, who are nevertheless far from being quite well. They can generate just enough vital energy to sustain a sort of vegetable existence, but are incapable of entering into active relations with the external world. They may pass current physiologically, as "greenbacks" do financially, — as indisputable legal tender, but considerably below par.

Of these, and of the classes that mark the gradations between them and thorough health, it is a mere truism to say that if any one with sound organs fail to enjoy the full measure of natural functional vigor, it is through violation of natural laws; the error sometimes arising from necessity, but far oftener from ignorance. Nay, even impaired organs can be made to do a creditable amount of work without discomfort by placing them under the most favorable hygienic conditions.

Surely, the knowledge how to employ one's vital energies to the best advantage, how not only to avoid preventable disease, but to maintain the highest standard of health compatible with one's physical organization, is quite as important as an intimate conversance with the minor

incidents of the French Revolution, or proficience in the nomenclature of far western post-villages.

I am aware that in a few isolated instances instruction in hygiene is nominally afforded to advanced classes, but nowhere, as far as I have heard, is sufficient prominence accorded to it. Even in my own profession, of the thirty-seven medical colleges in the United States, I know of but four that have chairs of hygiene; in the rest this weighty subject, if touched upon at all, is relegated to two or three lectures interpolated in a course on surgery, or materia medica, or some other equally relevant topic. It seems to me that in no direction could the influence of the Social Science Association be more profitably exerted than in an endeavor to change all this.

Hygiene, the most practically useful of sciences, should be made an essential feature of every grade of education and taught with the thoroughness it merits. It should be introduced in all normal schools as an obligatory part of the training of teachers, in order that its rudiments might be imparted even to the pupils in primary class-rooms wherein are found the children of the poor, who stand in greatest need of its counsel. From the lowest form up to the graduating class of every college I would give it a progressive course, as is done with mathematics, classics, and, indeed, all other branches of tuition; not necessarily particularizing all the recondite technicalities which are requisite for the professed sanitarian, but comprising personal hygiene with so much of public hygiene as every citizen should know. As a model exemplar of what a part of such teaching should be, I would point to a paper by Dr. Bowditch on "Preventive Medicine and the Physician of the Future," published in the latest report of the Massachusetts Board of Health, in which it is shown how hereditary tendency to disease may be held in abeyance by a properly regulated course of life.

Involving, as it does incidentally, elementary instruction in physics and chemistry as well as physiology, hygiene as I would have it taught would afford at least as good means of intellectual training as any study now embraced in undergraduate schemes; its principles being nothing if not rigorously logical inductions from demonstrable facts; whilst in addition to this disciplinary value, it possesses, from the utilitarian point of view, the greater recommendation of offering practical benefits, both present and future, to every class of the community. No more effective method could be devised for the suppression of ignorant quackery than to teach the public something of the philosophy of life and health; no better legacy could be prepared for posterity than to tell those who are to give birth to coming generations how to fulfill their parental duties and to transmit an unimpaired inheritance of health to their heirs; no sanitary legislation can do unaided such wide

good for public health as would be accomplished by thus enlisting the intelligent coöperation of every member of the community.

It would be easy to elaborate further argument, but I am conscious of having already multiplied words unnecessarily, in support of a proposition which the simplest statement might render self-evident. Doubts or objections, if any there be, can only emanate from pedagogical, not from physiological considerations, and to forestall these I would cite the high authority of Dr. Maudsley, who in his latest work, speaking of the avoidance not only of bodily, but of mental derangement, says: "Regarding the subject from a scientific point of view, the best education would seem to be that which was directed to teaching man to understand himself, and to understand the nature which surrounds him, and of which he is a part and a product; so to enable him, as its conscious minister and interpreter, to bring himself into harmony with nature in his thoughts and actions; and so to promote the progressing evolution of nature through him, its conscious self. The highest evolution of which man's being is capable, physically, morally, and intellectually, through knowledge of, and obedience to, those natural laws which govern not only the physical world, but, not less surely, every thought and feeling which it enters into his mind to conceive, must be the aim of an education founded on a truly scientific psychology."

In remarking upon Dr. Carroll's paper, Dr. C. R. Agnew, of New York, spoke also of some of the points raised by Dr. Lincoln, mentioning specially the prevalence of myopia and other affections of the eye in the schools of America and of Germany, particularly in the latter country. In the United States, he said: "Statistics did not show that pupils were much afflicted in that way; but he, as well as other physicians, could bear witness to the growing frequency of such affections. He spoke also of the dangers of cramming and of keeping girls of thirteen or fourteen years old for many hours at sedentary occupations. Seats in school-houses should be so modeled as to make any prone position of the head fatiguing. The light should come from above, over the shoulder. We never should have good results from education in our schools and colleges till sanitary science was taught as Dr. Carroll had suggested, and until a practical application was made of its principles."

A lady said she wished the Association would understand that the teachers were not entirely to blame. She was willing to divide the blame with the parents and the doctors, but did not wish to see the teachers charged with the destruction of the health of children, and the total annihilation of the American race. The discussion was continued by Mrs. Dall, of Boston, Mrs. Dr. Halleck, of New York, and others.

TENT HOSPITALS.

A Paper by J. Foster Jenkins, M. D., of Yonkers, N. Y.

Read May 21, 1874.

The bitter experience of the allied armies in the Crimea, engaged, during 1854–55, in war with Russia, fixed attention as it had never been before, upon the need of radical reforms in hospital construction.

The report[1] to the English Minister of War of the proceedings of the Sanitary Commission dispatched to the seat of war at the East, the writings of Miss Florence Nightingale, and finally the report,[2] in December, 1857, of the Commissioners appointed to inquire into the regulations affecting the sanitary condition of the army, the organization of military hospitals, and the treatment of the sick and wounded, furnished an array of facts and arguments, which went far to illustrate and establish the principles, from a general acceptance of which alone beneficent reforms could spring.

The subsequent experience of the British forces in India,[3] that contributed by the recent war of the American Rebellion, and by the campaigns of the French, German, and Italian armies since 1866, and the active discussion that has sprung up in England, France, Germany, and in the United States, of the special questions pertaining to hospital hygiene and administration as influencing the growth of correct principles of hospital construction, have each made valuable additions to our knowledge, and have rendered it well nigh certain, that coming generations of men, when they look upon hospitals hereafter endowed by the benevolent, need not be forced to lament that the pious intentions of founders should be frustrated by the ignorance of builders. For not in a single generation or country alone has it been an open question,

[1] *Report to the Right Hon. Lord Panmure, G. C. B., etc. Minister at War, of the Proceedings of the Sanitary Commission dispatched to the Seat of War in the East.* 1855–56. *Presented to both Houses of Parliament by Command of Her Majesty, March,* 1857. London: Printed by Harrison & Sons.

[2] *Report of the Commissioners appointed to inquire into the Regulations affecting the Sanitary Condition of the Army, the Organization of Military Hospitals, and the Treatment of the Sick and Wounded; with Evidence, and Appendix. Presented to both Houses of Parliament by Command of Her Majesty.* London: Printed by Eyre & Spottiswoode for Her Majesty's Stationery Office, 1858.

[3] *Report of the Commissioners appointed to inquire into the Sanitary State of the Army n India with Précis of Evidence. Presented to both Houses of Parliament by Command of Her Majesty.* London: Printed by Eyre & Spottiswoode for Her Majesty's Stationery Office, 1863.

whether the sick were the more helped or injured by residence in the average, nay, in the best-existing hospital.[1]

Miss Nightingale, even so recently as in 1863, said,[2] that strange though it seems, it is yet quite necessary to lay down the principle that the very first requirement in a hospital, is that it should do the sick no harm, — necessary because the actual mortality *in* hospitals is very much higher than any calculation founded on the mortality of the same class of diseases among patients treated *out of* hospital would lead us to expect. And a knowledge of the serious influence exercised by hospital construction on the duration of illness and the rate of mortality, led her to present to the English National Association for the Promotion of Social Science, the paper which, reprinted as Notes on Hospitals, has through successive editions, probably done more than any other treatise to promote sound views of hospital economy.

The English Royal Commission, appointed in 1857, for improving the sanitary condition of barracks and hospitals, indicated clearly in a few words the reason for which hospitals exist, viz.: "It should never be forgotten that the object sought in the construction of a hospital is the recovery of the largest number of sick men to health in the shortest possible time, and to this end everything else is only subsidiary." [3]

How shall we, then, best build our hospitals so that they hasten rather than retard the convalescence of the ill, and will not add to surgical injuries and diseases brought into the hospital, the graver pests too frequently engendered there?

The outgrowth of the discussions of the past twenty years is a general assent that the sick man placed in hospital is likely soonest to be remanded to his ordinary course of life, who, other things, equal, finds himself in a structure consisting only of a single isolated ward, light, warm, and possessing an atmosphere of perfect purity, frequently renewed by thorough ventilation.

The condition essential to success here is the greatest attainable

[1] "It should never be forgotten for a moment, that on the purity of the air of a ward depend, in a great measure, the recovery or death of the sick and maimed, the usefulness or injury arising from the hospital, the duration of cases, and, consequently, the hospital economy; whether, in short, a hospital, planned, erected, and supported 'by voluntary contributions' is to be a blessing or a curse to civilization." * Quoted from Miss Nightingale, by Sir J. R. Martin, in Holmes' System of Surgery, London, 1871, 2d edition, vol. v. p. 1012.

[2] *Notes on Hospitals.* By Florence Nightingale. 3d edition. London, Longmans, 1863. Page first of Preface.

[3] *General Report of the Commission appointed for improving the Sanitary Condition of Barracks and Hospitals.* Presented to both Houses of Parliament by command of Her Majesty. London: Printed by Eyre & Spottiswoode, for Her Majesty's Stationery Office, 1861, p. 175.

"* Ponteau, looking at the ill-placed, ill-constructed and ill-regulated hospitals of his day, asks 'Are hospitals, then, more pernicious than useful to society?'"

purity of the atmosphere, and to it all other questions should be but secondary. This determines the isolation of the ward, and forbids its association with another under the same roof. If larger numbers of sick are to be cared for than it is proper to aggregate in a single ward, another distinct structure should be provided, It will not do to erect a building of two stories, each a ward. By the poisonous emanations which it gives to its neighbors, and the limit it imposes on ventilation, each deprives the other of its prime condition of success, — a constantly pure atmosphere.

It is demanded, then, that aside from the erections demanded by the offices of administration, a hospital be composed of distinct structures of which, so far as shelter to the sick is concerned, the detached ward is the unit.

The number of wards under the same control constitutes the hospital a large or a small one. The only limits need be those determined by the number of the sick to be provided for, and the convenience of administration.

By what successive steps of experience and discussion students of hygiene have demonstrated that complete purity of air investing the patients, and, as essential to this purity, the isolation of the wards, are indispensable, need not be related in detail to this assemblage, even though the half hour allotted to this paper did not relegate to the limbo of appendix or foot-notes much citation of authorities and many illustrative statements.

I can, however, hardly forbear to cite in support of these general views the testimony of Dr. Parkes, Professor in the English Army Medical School, who has, among sanitary scholars and teachers of hygiene now living, hardly a peer. In the fourth edition of his treatise on Practical Hygiene, he says: "Although the establishment of hospitals is a necessity, and marks the era of an advanced civilization, it must always be remembered that if the crowding of healthy men has its danger, the bringing together within a confined area many sick persons is far more perilous. The risks of contamination of the air, and of impregnation of the materials of the building with morbid substances are so greatly increased, that the greatest care is necessary that hospitals shall not become pest-houses, and do more harm than good. We must always remember, indeed, that a number of sick persons are merely brought together in order that medical attendance and nursing may be more easily and perfectly performed. The risks of aggregation are encountered for this reason; otherwise, it would be far better that sick persons should be separately treated, and that there should be no chance that the rapidly changing, and, in many instances, putrefying, substances of one sick body should pass into the bodies of the neigh-

boring patients. There is, indeed, a continual sacrifice of life by diseases caught in, or aggravated by, hospitals. The many advantages of hospitals more than counterbalance this sacrifice, but it should be the first object to lessen the chance of injury to the utmost. The risk of transference or aggravation of disease is least in the best ventilated hospitals. A great supply of air, by immediately diluting and rapidly carrying away the morbid substances evolved in such quantities from the bodies and excretions of the sick, reduces the risk to its minimum, and perhaps removes it altogether. But the supply of air must be enormous. In addition to the necessary amount to dilute and remove these substances, the freest supply of air is also now known to be a curative means of the highest moment; in the case of the febrile diseases, both specific and symptomatic, it is, indeed, the first essential of treatment; sometimes, especially in typhus and small-pox, it even lessens duration, and in many cases it renders convalesence shorter.[1]

"There can, I believe, be no doubt that the necessity for an unlimited supply of air is the cardinal consideration in the erection of hospitals, and, in fact, must govern the construction of the buildings. For many diseases, especially the acute, the merest hovels with plenty of air are better than the most costly hospitals without it."[2]

He also quotes with approval the doctrine enunciated by Miss Nightingale, that "the sick should be placed in small, detached, and perfectly ventilated buildings, so that there is no great number of persons in one building, and there should be no possibility of the polluted air of one ward passing into another."[3]

The Department of Health of this Association, when inviting the preparation of a paper upon tent hospitals desired, I presume, to elicit a discussion as to the applicability of tents to the hospital requirements of civil society, rather than to ask further consideration of their uses for the temporary shelter and treatment of disabled men in time of war.

In a thousand growing towns and incipient cities of the United States, to say nothing of those larger cities whose petrified embodiment of old errors in hospital construction yield steadily their harvests of disease and death, there is to-day an urgent need of better provision than exists for the care of such members of the community as, disabled by sickness or accident, most fitly rely on the local hospital to raise them from the class of dependents and consumers into that of helpers and producers.

It were idle to occupy the moments in reasserting the well-known

[1] See evidence on pages 276, 277.

[2] *A Manual of Practical Hygiene, intended especially for Medical Officers of the Army and for Civil Medical Officers of Health.* By Edmund A. Parkes, M. D., F. R. S., etc., etc. Fourth edition. Philadelphia, Lindsay & Blakiston, 1873, pp. 326–328.

[3] Op. Cit. p. 328.

truths that society cannot afford to lose the pecuniary value of the life or health of any citizen, and that it finds in every possessor of a sound mind in a sound body, a positive addition to its social forces. Its interests, not less than humane sentiment or its sense of duty, call for its intelligent appreciation of the principles of hospital construction, on which the success of all hospital administration is dependent.

I hope to show in this paper that tents are probably not less suited to satisfy the requirements of permanent civil hospitals than to meet the exigencies of war; that warmth and light and pure air can be secured to their occupants, and that so they satisfy the prime necessity of hospital construction, viz.: that in them the largest number of sick may be restored to health in the shortest possible time.

The proposition advanced, you observe, is qualified, and in place of demonstration, there can only be offered you such *à priori* reasoning on ascertained facts, and on the accepted doctrines of hygiene, and such limited, perhaps you will say inconclusive, experience, as has thus far been put upon record. The full acceptance of the proposition in its nakedness has been too recent; theory has as yet too seldom received material expression; the isolated canvas ward is too generally still an ideal creation, and comparative statistics of the duration of sickness and of the rates of mortality in the new structures and in the old, have not been accumulated in a sufficient body to satisfy the rigorous demands of scientific demonstration. Were the doctrines not only established, but generally accepted, this Association would scarcely call attention to them.

Although occasional allusions to the use of tents for hospital purposes are noticed in the writings of Ambrose Paré,[1] Monro,[2] Hen-

[1] In *Apologie, et Traité contenant les Voyages, etc.*, "Voyage de Metz, 1552," of the German camp after the raising of the siege he says: "On alla où ils avoient campé, ou l'on trouva plusieurs corps morts non encore enterrés, et la terre toute labourée, comme l'on voit le cimitière sainct Innocent durant quelque grande mortalité. En leurs *tentes*, pavillons et loges, yavoient laissé pareillement plusieurs malades." *Oeuvres complètes.* Paris, Baillière, 1840–41, tome iii. p. 707.

[2] "Some of the regimental surgeons in *Germany*, when they took the field, had always some spare tents carried along with their medicine chests; and when any of their men fell sick in camp, and they could get no house for a regimental hospital in villages, they ordered these tents to be pitched, and had the ground within well covered with straw and blankets, and then put the sick into them, and then took care of them till they found an opportunity of sending them to the Flying Hospitals." *An Account of the Diseases which were most frequent in the British Military Hospitals in Germany, from January* 7, 1761, *to the return of the Troops to England in March*, 1763, *to which is added an Essay on the Means of Preserving the Health of Soldiers, and conducting Military Hospitals.* By Donald Monro, M. D. London, 1764, p. 355. . . . . Monro also stated on the authority of Dr. Hume, that in 1755, some of the men-of-war carried out to North America a malignant jail fever, brought by impressed men. The fever continued to spread while at sea; but at Halifax the sick "were lodged in tents, or in very old, shattered houses, that admitted the air very freely, which put a *sudden* and effectual stop to this disorder." *Ob-*

nen,[1] and Larrey,[2] and although their summer use in Russia dates back more than forty years,[3] yet their especial value in the management of malignant epidemics was first exhibited on a large scale in 1855, at Varna, among the French troops smitten with cholera.[4] The smaller rate of mortality among the men treated in tents, less than twenty-seven per cent. of those attacked, as compared with those in buildings, sixty per cent., attracted marked attention.

servations on the Means of preserving the Health of Soldiers, and of conducting Military Hospitals; and on Diseases incident to Soldiers in the Time of Service, and on the same Diseases as they have appeared in London. 2d edition. London, 1780, vol. i. p. 269.

[1] *Principles of Military Surgery.* By John Hennen, M. D., F. R. S. E. London, 1829, pp. 237, 238, and 243.

[2] *Memoires de Chirurgie Militaire, et Campagnes.* D. J. Larrey. Paris, 1812, tome i. pp. 244, 281.

It is noteworthy that the three hundred severely wounded men of the battle (reconnoissance in force) before el-A'rich, most of whom required the performance of surgical operations, who during continuous rainy and cold weather (February, 1799), were protected only by poor tents or boughs of the palm-tree from the humidity of the atmosphere and of the ground, who were deprived of their usual food and compelled to substitute for it the flesh of wounded camels and horses, yet generally bore their wounds and operations well. "Mais en général elles furent toutes suivies de succès."

The reconnoissance was followed after a few days by a brief siege of the fort of el-A'rych. Here "suitable premises" (un local convenale) were prepared to receive and treat the wounded. These wounded rejoined the army — *à l'exception de quelques uns qui moururent de la peste.* Was not the open-air treatment of the earlier wounded probably their protection against the maladies that so often assail aggregations of men after operation? Would the second company of wounded have been as likely to have had their ranks thinned by malignant fever under poor tents, as in the "suitable premises" which doubtless protected and perhaps decimated them? *Vide* Larrey, Op. Cit. vol. i. pp. 280, 285.

[3] "It seems that, whether in imitation of the mountain tribes of the Caucasus (where the practice has prevailed from time immemorial) or not, the Russians have been in the habit during summer of resorting to the tent system for the last forty years. Not only in the great camps near St. Petersburg, Warsaw, etc., are the patients placed in this description of ambulance, but all the civil and military hospitals possess a similar mode of establishment for the summer months. Of course, in winter, the great object, in so rigorous a climate, is by any means to exclude the cold; and as this has to be effected at the expense of ventilation, the consequence is, that not only the vast hospitals of the town, but the smaller ones, and even private houses, become infected, and erysipelas, gangrene, and pyæmia, typhoid and recurrent fevers are produced. Among the lower classes and the soldiers, hemeralopia and scorbutus become prevalent; and although all the usual remedies are resorted to, there is but one means of radical cure, the admission of air. The evacuation of hospitals, ambulances, etc., is therefore effected as soon as this becomes possible; and to this end every Russian hospital is in possession of light wooden constructions, or tents are raised in large gardens or plantations, and sufficiently remote from habitations, under the designation of summer hospitals. Scorbutus and hemeralopia now disappear as if by enchantment, the wounds take on a healthy aspect, and epidemics disappear." — Dr. Oscar Heyfelder, *Medical Times and Gazette* (London), June 10, 1871, from *Presse Belge*, May 7 and 14, 1871.

[4] *La Guerre de Crimée, les Campements, les Abris, les Ambulances, les Hospitaux*, etc., etc. Par L. Baudens. Deuxième edition. Paris, 1858, pp. 187, 188, and M. Michel Lévy in *Bulletin de l'Académie de Médicine*, 1862, p. 617.

The statistical statement of M. Lévy, which is relied on in the text, is quoted from the

In 1861, Dr. Kraus, an Austrian military surgeon, published records of the experience of the Austrian army,[1] where since 1854 tents had been, during the mild season of the year, in growing use for hospital purposes. The report of this experience is so pertinent to many of the questions which are suggested by the present discussion, that portions of it may here be fitly presented. I quote from the abstract of it made for the parliamentary blue-book, containing the statistical, sanitary and medical report of the medical department of the British army for 1862 :[2] —

"In 1854, at some of the stations of the Austrian army in Hungary, the plan was commenced of treating a portion of the patients under tents instead of in the permanent hospitals, and this was continued from spring to the end of autumn." "The results were very satisfactory. The most severe maladies ran their course much more mildly in the free air, *i. e.*, in tents, and recovered more quickly and more perfectly than in the confined spaces of hospitals." In the following years till the date of publication, the plan was continued, and the tents were kept open farther into the winter, and it was noticed that by a sudden burst of cold weather, when the thermometer fell to freezing point at night, the sick were in no degree damaged, and singularly enough, the men themselves, many of whom were severely ill, declined the offer to move them from the tents into the hospital. Taking the experience of the six years (1854–1860) the following results were brought out: —

Typhoid fever. — In its severe forms was treated more successfully in tents than in the hospitals. Less than twenty-one per centum of admissions proving fatal in tents, while thirty and a half per centum of those admitted into the permanent hospitals died. Attendance, diet, and medicine, were the same in both, and it was to the disadvantage of the tents that they were used during the worst months of the year for typhoid, August and September, when the severest cases were admitted. As regards the course of the disease, it was shorter in the tents; there

History of the American Ambulance Established in Paris during the Siege of 1870–71, *together with the Details of its Methods and its Work.* By Thomas W. Evans, M. D., D. D. S., Ph. D., etc., etc. London, 1873, pp. 479, 480.

The report of Dr. Edward A. Crane, on the *Organization of the American Ambulance*, which extends to nearly 500 pages of this imperial volume, is a monument of well-directed devotion too seldom encountered in our literature. Its history of the establishment of army hospitals and of the use of tents, whether for shelter or for the hospitalization of the sick, is well nigh exhaustive. It shows great familiarity with the writings of physicians and sanitarians on proper provision for the sick and wounded. And its discussion of the varied details of the special organization of the ambulance under consideration is eminently suggestive and thorough.

[1] *Das Kranken Zerstreuungs-System.* Von Felix Kraus; K. K. Ober. Stabarzt. Wien, 1861.

[2] Army Medical Department. Statistical, Sanitary, and Medical Reports for the year 1862. London, 1864, pp. 347, 348, 349.

was earlier loss of headache, speedier lessening of the fever, and earlier moistening of the tongue. While in the hospital it was the third or fourth week before decided and permanent improvement set in, this occurred in tents by the fourteenth day. It was also noticed that in spite of the severity of the cases in August and September, there was no spreading of the disease in the tents.

Small-pox. — In the tent cases the eruption came out quicker and better, maturated more rapidly, and the desiccation and convalescence were not followed by any sequence. In the permanent hospital the course was longer, the stages less defined, recession of the eruption was more common, after diseases were more frequent.

Syphilis. — In the wards, bubos, even when opened at the proper time, showed, in the hot summer months, a tendency to, or an actual production of gangrene. As such occurrences happened extremely rarely in the tents, it became a practice at once to remove such patients from the wards to the tents, and with very favorable results; there appeared to be an improvement in vitality.

Wounds and Outer Inflammation. — Of all the cases treated in tents, these showed the most favorable results. In 1859, a number of wounded (789) were sent from Italy; all severe cases were sent into tents; the slighter cases into wards.

All the men in the tents had a fresh, lively look, which contrasted very strongly with the appearance of those in the wards. In the wards, though doors and windows were left open almost the entire day, and the greatest care was taken with treatment, hospital gangrene occurred, and when the gangrened parts separated the granulations were unhealthy. All this was mended at once when the men were brought into the tents; the gangrenous parts separated more rapidly, and there was afterwards a more rapid reproduction. In no single case could it be ever made out that gangrene originated in the tent.[1]

Not less important is the fact that no case of pyæmia occurred in the tents, and the production of tuberculosis, hydrœmia, etc., following wounds was trifling. There was no death among any of the wounded treated in tents.

Scurvy. — In 1860 there was a good deal of scurvy; the improvement occurring in tents over that seen in the hospital was well marked.

In view of these results, Dr. Kraus strongly advocates the use of tents for field hospitals in war, instead of converting buildings (often unsuited for the purpose) into hospitals.

Dr. Kraus alludes to the usual opinions that tents are too hot, too

[1] See similar testimony of American experience as given by Dr. Hammond, Surgeon-general of the United States Army, p. 278. Compare also the experience of Hennen at Abrantes (Rosçio), referred to on page 275.

cold, too exposed, or likely to be wet, and he justly considers all these objections to be of no practical value. They are, in fact, usually *à priori* conclusions by persons who are not well acquainted with tent life.[1]

The war of the Rebellion from 1861 to 1865 furnished the opportunity to apply in the United States, on a gigantic scale, the teaching presented by recent European experience. The tent hospital, either through necessity or by choice, was established under a great variety of conditions, and the tests to which it was subjected, have, in their result, afforded to the lessons of that teaching an ample support. The medical officers of the national government and of the insurrectionary States gave accordant judgment.

The Surgeon-general of the United States Army, Dr. Hammond, wrote in 1863, in the third year of the war, "Nothing is better for the sick and wounded, winter and summer, than a tent, or a ridge-ventilated hut. The experience gained during the present war establishes this point beyond the possibility of a doubt. Cases of erysipelas, or of hospital gangrene, occurring in the old buildings, immediately commenced to get well as soon as removed to the tent. But in no instance that has come to my knowledge has hospital gangrene originated in a wooden pavilion hospital, and in no instance, so far as I am aware, in a tent. Again, wounds heal much more rapidly in them, for the reason that the full benefit of the fresh air and the light are obtained. Even in fractures the beneficial effects are to be remarked."[2]

Dr. Chisholm, a confederate surgeon, wrote during the war: "Men treated in a tent hospital always convalesce much more rapidly than those collected together in a large hospital building."[3]

[1] "We did not find, during the Crimean war, that free ventilation in our temporary hospitals was injurious. I can vouch for having treated and seen treated many cases of inflammatory affections of the chest in such hospitals without injurious effects. Men suffering from bowel affections were most liable to the influences of cold. During the Franco-German war, the soldiers have been very largely exposed to the full effects of the weather; yet up to an advanced period of the winter, the percentage of sick in the well-fed and well-clothed German army was small. A degree of warmth that is unnecessary for health, however, adds to comfort, and to a reasonable extent should certainly be afforded. In civil life, where the extremes of age, and delicate people, are so largely inmates of hospitals, a greater degree of warmth is requisite; *but this can be fully obtained in a well-ventilated building. Notes on Hospital and Barrack Construction and Ventilation.* By Deputy Inspector-general Massy, M. D., C. B., Head of the Sanitary Branch. Appendix No. II. to *Army Medical Department Report for the Year* 1869. Vol. xi. London, 1871, p. 242.

[2] *A Treatise on Hygiene, with special reference to the Military Service.* By William A. Hammond, M. D., Surgeon-general United States Army, etc., etc. Philadelphia, J. B. Lippincott & Co., 1863, pp. 397, 398.

[3] *Manual of Military Surgery,* 1862. Quoted by Dr. E. A. Parkes in *Review of the Progress of Hygiene during the Year* 1862. Army Medical Department. Statistical, Sanitary, and Medical Reports for the Year 1861. London, 1863, p. 334.

At the same time, on the other side of the world, evidence was gathering of the superiority of tents over the older constructions for the care of the disabled, as was shown by Mr. Mackinnon, Sanitary Officer to the English troops engaged in war with the Maories of New Zealand, during 1863–4–5, in his report to the Director-general of the Medical Department of the Army. He asserted that "it was observed by all the medical officers who had opportunity of judging, that the wounded progressed more favorably in tents."[1]

After the short, sharp, and decisive conflict, between Prussia and Austria in 1866, each Prussian hospital had its annex of a tent ward, in which were placed the worst cases, particularly those in which there was much suppuration. The indispensableness of abundant fresh air to the safe treatment of hospital gangrene, compelled the resort in such emergencies to the easily ventilated tent.[2]

Within the ten years that had now succeeded the report to the English Government of its Crimean Sanitary Commission, correct doctrines as to hospital construction, borne witness to so continuously by the result of their application, under the emergencies of war in Hungary, Bohemia, Italy, New Zealand, and the United States, had so won their way, that here and there, especially on the continent of Europe, civil surgeons began to promote the establishment on a small scale of tent hospitals to meet the ordinary requirements of urban populations. Foremost in developing practically the new ideas was Germany,[3] where, as M. Husson reports in a paper read by him in 1869 to the

[1] *A Brief Narrative of the War in New Zealand during the Years* 1863, 1864, *and* 1865, *embracing the Sanitary History of the Force.* By William Alexander Mackinnon, C. B., etc., Sanitary Officer of the Troops. Statistical, Sanitary, and Medical Reports, vol. vi. for the year 1865. Army Medical Department. London, 1857, p. 408.

Inspector-general Mouat, in his report on Wounds and Injuries received by troops in New Zealand during 1863–4–5, says: "During the war there was one place at which, for a short time, wounds did not do so well — at Tauranga. There the wounds were inclined to take on unhealthy action; the flaps of stumps sloughed, secondary hemorrhage appeared, and the men generally did badly. The cause was evident, and as it admitted of prompt remedy, Tauranga became as healthy as any other hospital. The wounded had been placed in a very comfortable house, where plastered wall and ceilings effectually prevented the irregular ventilation which was so beneficial in its effects at Queen's Redoubt Hospital. The house acquired the sickly hospital smell, which was ineradicable; disinfection did no good, and yet the entire cubic space allowed to each patient was not less than eight hundred feet. The patients were, most of them, removed from this house, *placed in marquees, and at once everything changed; the most unpromising wounds did well,* and no more satisfactory cures could have been achieved elsewhere." Deputy Inspector-general Massy in English Army Statistical, Sanitary, and Medical Reports for the year 1869. Vol. xi. London, 1871, p. 234.

[2] *Report on the English and Sanitary Services of the Prussian Army during the Campaign in Bohemia,* 1866. By J. A. Bostock, M. D. Army Medical Department. Statistical, Sanitary, and Medical Reports. Vol. vii. for the year 1865, London, 1867, p. 361.

[3] *Medical Times and Gazette.* London, Feb. 6th, 1869, p. 145.

Academy of Medicine of Paris,[1] the hospital authorities in all the principal cities erected tent hospitals in their gardens. The surgeons were almost unanimous in their declarations that the results of amputation, and other grave operations, were extremely favorable as compared with the operations in the older hospitals, and M. Chantreuil has reported the statistics of these establishments in the *Archives Générales*, and shown that successful results after operations on patients treated in tents are far more frequent than when they are the inmates of the ordinary hospitals. M. Husson, who held at Paris the important position of Official Director of Public Assistance, closed his paper at the Academy by commending a cautious but complete investigation of the subject of tent and shed hospitalization.

Aided by his encouragement, M. Le Fort, surgeon to the Cochin Hospital, soon established in its ample grounds a tent ward of eighteen beds, and with results the most favorable to its inmates.[2] In a Paris hospital, where capital operations and grave accidents so generally lead to the autopsy chamber, by reason of the preventable diseases induced by the contamination by organic emanations of everything about the patient, it was a new experience to see considerable numbers of severe injuries get well without a single complication of pyæmia, erysipelas, or hospital gangrene.[3]

Thus far, while tents had been growing in favor for the hospitalization of the sick, during the warmer portion of the year, a general conviction obtained that they were unfit to subserve this end during cold weather. Despite occasional statements of their successful use in winter, little effort was made to install them as sedentary hospitals, and where most valued during the milder season they were speedily evacuated with the first severe frost.

The Franco-German war of 1870–71, and the siege of Paris, gave an opportunity to our countrymen resident in Paris to test the conviction which some of them strongly held, that hospitals could be maintained under canvas, not merely in summer, but would as well meet the exigencies of winter service. Associating themselves as the American International Sanitary Committee of Paris, they established a fixed hospital on the border of the Bois de Boulogne, three wards of which, containing twenty-six, twenty-eight, and ten beds, respectively, were composed of canvas tents. The two larger wards, made by the union of several United States regulation hospital tents, were pavilions of cotton duck, seventy and eighty-four feet long, having a width of fifteen feet.

[1] *Medical Times and Gazette.* London, August 21st, 1869, p. 227.

[2] *Medical Times and Gazette.* London, November 27th, 1869, p. 639, and May 28th, 1870, pp. 590, 591.

[3] *La Chirurgie Militaire, et les Sociétés de Secours, en France et a l'Etranger.* Par Leon Le Fort, etc., etc. Paris, 1872, pp. 180–182.

A vestibule at each end protected the inmates from sudden drafts of cold air. The tents were furnished with board floors and covered each with a *sur-tente*, or fly. The ingeniously contrived plan of heating the wards by a subterranean furnace at the front of each, whose smoke pipe ran in a covered trench (communicating by registers with the interior of the tent), the whole length of the pavilion, and emerged from the ground outside its rear wall, secured an equable temperature, and abundant ventilation, conditions that previously it had been thought difficult to reconcile under canvas during cold weather.

Although the American ambulance made additional provision, by tent barracks and a house converted to hospital use, for the wounded committed to their care, the place of honor was ever assigned to the tents, — the most severe cases being treated there, — while the slightly wounded and the convalescent were bestowed in the other structures.

The barracks, too, served for the various offices connected with the hospital administration.

The results of this experiment vindicated its wisdom. From September to March, embracing a winter of unusual severity, the tents were warm except when fuel could not be had; were light, easily ventilated, and all the time free from the slightest indication of infection by emanations of organic poison, and from hospital diseases dependent on aggregation, while the death rate was, compared with that of other Paris ambulances, exceptionally low.

Dr. Gordon, sent on a special mission to the French army by the Secretary of State for war, and who remained in Paris during the siege, after deploring the fact that during the late war the results of operations were generally very unfortunate, did not hesitate to state that "within Paris we had, however, in the American Ambulance, undoubtedly the most favorable result of any."[1]

Why was this? Dr. Crane, the Secretary of the Committee, states that "the conditions under which the wounded men were treated at our ambulance differed in no essential respect from those existing in the other ambulances at Paris, except in so far as the patients were more directly exposed to the influence of the open air. The food used by us was no better than that employed elsewhere; the medicines were the same, and the surgical treatment was essentially the same."[2]

Again, effectively presenting some arguments for canvas hospitals, he says: "If most satisfactory results have followed the treatment of the wounded and sick in tent hospitals, it has been principally because they are more completely capable than any other hospitals of a constant and natural ventilation. Formed of a tissue permeable to air and gases, the vitiated air within them is constantly passing out, and is constantly

[1] *History of the American Ambulance*, etc., p. 491.

[2] *History of the American Ambulance*, etc., p. 494.

being renewed by fresh air which enters, not only through certain openings, but passes freely through the net-work of the covering itself. During a considerable portion of the year the doors may be opened, and the walls of the tent so raised as to enable the patients to pass many hours of each day in the open air. In the colder season, when it may be necessary to warm the tents, the air within them may be maintained even more constantly pure; since, whenever the temperature of the air within a tent is raised to a degree above that of the air without, the air within the tent begins to escape, or rather is forced into the surrounding atmosphere, from which, in turn, it is necessarily renewed; and the rapidity of the outgoing and incoming currents of air will increase with the difference existing between the temperature within the tent and the temperature of the atmosphere at large. In my opinion, where the difference between the interior and the exterior temperature is from 30° to 60° Fah., most of the vitiated air passes out through the tissue of the tent. However this may be, it is certain that at our ambulance, where we maintained a constant temperature of about 60° Fah. night and day — when we had fuel — the atmosphere within the tents seemed to grow purer as the weather became severe. Never at any time was a persistent odor to be perceived in the tents, except that of tobacco smoke; and it may be interesting to observe, that while this odor clung to the tents during the mild days of the winter, it rapidly escaped whenever the weather was frosty. I believe the greatest advantage from a sanitary point of view to be derived from the general use of tents in the hospitalization of the sick and wounded, depends upon the facility with which the atmosphere within them may be kept pure and wholesome, and the common results of overcrowding avoided. Another very probable cause of the excellent results obtained in tents, may be attributed to the circumstance of their occupants being constantly more or less exposed to the influences of direct light. When the sick are treated in the open air the influence of light upon them must be very considerable. How important a fact this agent may be, among the several known to be indispensable in order to have the best sanitary condition, it is difficult to say. We know, however, that without light the maintenance of health for any considerable time is impossible, and that its invigorating effects upon organic life in general, bear a constant relation to the directness or indirectness with which the light may reach it. If it be true that the light within a tent is not at any time, strictly speaking, direct sunlight, the light within a white cotton tent not only is in great part direct light, but the light is stronger — the tent being in the sunshine — than it generally is in any room receiving its light indirectly, and by reflection, as nearly all rooms do.[1]

[1] *History of the American Ambulance*, etc., pp. 492, 493.

The thorough working out of these results was due largely to the intelligent prevision, energy, and devotion of Dr. Thomas W. Evans and Dr. Edward A. Crane, the President and Secretary of the American Committee, whose familiarity with sanitary science, and previous studies of hospital hygiene, led logically to this unreserved application of correct principles, which had indeed before been acknowledged as theoretically true, while they had been accepted and acted on only with half-hearted hesitation.

The installation of the American Ambulance in Paris, in 1870, seems likely to encourage new applications of these principles wherever a desire for the speediest possible restoration of the sick is recognized as demanding the best models of hospital construction.

What conditions must be united in such structures?

1st. The tent should be of cotton rather than of hemp or flax. Cotton canvas is permeable to air, while less permeable than linen or hemp to water. Its durability is also greater.

2d. They should have, resting on a bed of gravel or sand, closely-joined board floors of hard wood. These should be covered with good oil cloth, or other non-absorbent material, to prevent fluids sinking into the boards. It would lessen the necessity of frequent washing of the floors, while it might itself be frequently removed and washed. Preferably, the floor should be waxed and dry rubbed, or coated with paraffine.

3d. All hospital tents should have the double roof or fly not only for protection against rain at all seasons of the year, and against the heat of the sun in summer, but by thus keeping the inner roof dry, to promote ventilation especially in winter. The less active aeration of the tents in warm weather through the interstices of their walls may be supplemented by open doors, and in some forms of construction, open windows, which should be placed opposite to each other, and by the partial elevation of the walls of the tent, which should be so arranged as to be easily raised when required. Both the inner roof and the fly should have louvred openings near the ridge at suitable intervals as accessory means of ventilation.

4th. In cold weather the heating should be effected by stoves below ground at the front of the tents, transmitting their heat along covered trenches which carry the smoke pipes to the rear, and which communicate with the wards by grated registers in the floor. The ground once dried and heated, becomes a reservoir of heat which it gives off for many hours, even though the fire be extinguished, and thus a rapid fall of temperature is prevented.

To serve the necessities of a hospital other than those providing for the shelter of the sick, to house the superintendent, the nurses and servants, to bestow conveniently the kitchen, the laundry, the phar-

macy, and to satisfy the other needs involved in a hospital establishment, more solid structures may be added. Their disposition, it is scarcely necessary to say, should be directed by the requirements of hygienic laws, and especially by the supreme law that nothing be permitted to hinder the freest access of pure air to the wards.

Many questions which relate to the grouping of the wards and the administrative buildings of the hospital, the best dimensions of wards, their distance from each other, and much else pertaining to hospital economy, fitly find their discussion in special monographs, or general treatises on public hygiene, rather than in this presence.

Other questions as to the advantages and disadvantages of tents for permanent hospitals must await for their determination a more extended trial.

Questions of first cost, of the cost of subsequent management, of the occasional renewal of material, are not considered here because they are held to be secondary to the chief demand, that in its hospitals society should do the sick no harm.

It will be well, and it seems to me not unfruitful of much good, if this association shall by the discussion it may foster, put on fuller trial the propositions of our countrymen in Paris,[1] viz. : —

1st. "That tent hospitals may be employed alike in winter and summer in all temperate latitudes ; and

2d. "That they are *better* fitted at all seasons of the year for the treatment of the [sick and] wounded than more permanent constructions."

In the words of Mr. Husson, "It suffices that the experiments already tried have furnished results so favorable as to induce us to resolutely enter upon a cautious but complete investigation. In view of an innovation concerning which ideas are scarcely yet formed, it behooves us to guard against both a blind enthusiasm which excludes all criticism and leads to pure illusions, and against that excessive reserve which is equivalent to immobility."

DESCRIPTION OF A TENT HOSPITAL.

Taken chiefly from the Report of Dr. Edward A. Crane, printed in Dr. Evans's "History of the American Ambulance." [2]

In the plate appended may be seen a sketch of a tent designed by Dr. Thomas W. Evans, and in the construction of which, while endeavoring to secure those qualities particularly desirable in an installa-

[1] *History of the American Ambulance, etc.*, pp 478, 479.

[2] This work, being the Vol. I. of *Sanitary Associations during the Franco-German War*, is published by Sampson, Low, & Co., London, 1873.

tion that is to have a certain permanence, he has sought to remedy, so far as it might be done, the mechanical faults which are most likely to be reproduced in any attempt to construct a large, strong, sturdy tent, intended to be used as a sedentary hospital. This is, perhaps, the best model which has been thus far presented, of a tent designed for about sixteen patients. But fuller information as to the details of material and construction should be sought for in such discussions as those of Miss Nightingale, Sir J. R. Martin, Prof. Parkes, Captains Douglas Galton, M. Le Fort, and Dr. E. A. Crane. The pavilion proposed by Dr. Evans is constructed in the following manner: —

Six posts, square, four inches thick, eight feet seven inches long, are sunk into the ground two feet, on lines which are to correspond with the side walls of the hut. The second post is placed fourteen feet from the first, the third, fourteen feet from the second, the fourth, four feet from the third, for a reason which will appear; while the fourth, fifth and sixth, are fourteen feet apart. The sides of the tent are therefore sixty feet long. The upright posts are united on each side by square bars, rounded on the upper and outer angles, four inches thick; these are placed horizontally from the top of one post to that adjoining. The extremities of these bars are secured to the posts by means of sockets.

The two lines of posts are now united at each extremity by a cross-bar, which is square, four inches in diameter, and twenty feet in length. The two bars complete the inclosure of a quadrangle, sixty feet long by twenty feet broad. Each one of the end bars is propped by two upright posts, similar to those on the sides, placed four feet apart. These posts inclose the doorways. A vertical pole, nine feet five inches long, is now erected over the centre of each door-way, its foot resting in a metallic socket. This standard is five inches in diameter at its base, and three inches at the top, which is armed with an iron spindle; it is flattened on its outer face. Two masts, six inches in diameter at the base, and three inches at the top, and seventeen and a half feet long, are sunk in the ground one and a half feet, on a line corresponding with the long axis of the quadrangle, twenty feet apart. These masts are connected at the top, one with the other, as also with the vertical standard over the door-ways, by ridge-poles, three in number, and each twenty feet in length; the ridge-poles are rounded on their upper faces. The two end ridge-poles are fastened to the upright standards by being passed over the terminal spindles with which the standards are armed. The middle ridge-pole is attached to its fellows by means of sockets. The skeleton, or framework of the tent, is now complete. I have not remarked, however, an arrangement of considerable importance. Each one of the sixteen upright wall-posts, of the end standard, and of the ridge-poles, is furnished with a row of fixed metallic rings, whose diameter is about three quarters of an inch. These rings are screwed into the outer faces of the posts, six inches, or eight inches from each other, and all facing in the same direction, upwards and downwards; on the ridge-poles they face each other horizontally.

(See Figures 1 and 4.)

Such a frame-work having been erected, it remains to be provided with its covering. This consists of two sections, which are to be united when erected at the ends and at the ridge. Each section forms one long roof, two triangular gable ends, two end curtains and five side curtains. The curtains are all sewed on to the edges of the roof, and also to the edges of the gable ends. The sides and bottoms of the curtains are provided with button-holes; so also are the vertical edges of the gable ends, and the superior edge of the roof; a narrow lapel projects beyond the line — the angle of the roof — where the roof and curtains meet; into this lapel are inserted the tent-ropes, two feet three inches from each other.

In erecting the tent, the sections are unrolled on the ground within the inclosure, the wall-curtains being drawn out toward the side posts, while the long straight edges of each — the edges containing the button-holes — are laid parallel to each other in the middle of the inclosure, along the line of its length. The long edge of one of the sections is now lifted up, and beginning at one of the extreme ends, the first button-hole is slipped over the spindle at the extremity of the standard over the door-way; the button-holes are fastened, one after the other, over the rings on the upper surface of the ridge-pole, until the edge of the section is adjusted along its whole length. The body of the section is then lifted up and over the horizontal bars — the plates of the frame-work — the curtains falling on the outside. The button-holes in the vertical edge of the gable end are adjusted to the rings in the standard over the door-way. The roof is drawn out by the cords attached to the lapel, and pegged to the ground in the ordinary way, or attached to parallel bars, as shown in the plate.

The curtains are now buttoned on to the ridge in the upright posts, one curtain edge over the other on the sides, the button-holes on the lower edge being passed over rings which are placed in the outer string-pieces on which the floor rests. (See Figure 1.) I may here say that, presuming it may not be always convenient to use a floor, the lower edges of the curtains are furnished with a series of loops, by means of which the walls can be pegged to the ground in the ordinary way. The canvas is held fast, and is prevented from slipping off the rings by passing a cord through the series, or by means of small keys, as shown in the illustrations.

I have elsewhere objected to the use of straps, buckles, etc., for curtain fastenings, because of the openings which almost always exist where such fastenings are employed; it is partly to reduce the number of such openings that the curtains have been attached permanently to the roof; it is for the same reason that the edges of two adjoining curtains have been buttoned, one curtain over the other, the edges of the curtains overlapping slightly for this purpose. In the curtain which rests upon the face of the post, the button-holes are four or five inches from the edge; the free border forms a roll beneath the outer curtain, in which the button-holes are close to the edge. The two curtains being pressed down solid by the keys, or the cord passed through the rings, this roll breaks or fills up the joints which would otherwise exist. The arrangement will be readily understood by a reference to Figure 2, where one curtain, *e*, is shown buttoned over the ring *b*, in the post *a*. The edge of the second curtain, *d*, is also buttoned upon *b*, and will be observed to have been

rendered slightly convex by the free edge of the curtain, *e*. Fig. 3 shows a section of the curtain, *e*, buttoned over the rings, *b b b*, with its free edge, *c*, rolled up. The curtain, *d*, may be brought forward and buttoned over, *b b b*, as shown in Fig. 2.

It is now necessary to arrange the fly. This is in three sections, each twenty feet broad, and about thirty feet long. It is in sections — *first*, that it may be the more easily adjusted; *secondly*, that the air between it and the roof of the tent may have a free outlet; this is desirable, not only because a better ventilation within the tent is thus maintained, but because the strain to which the fly, were it in one piece, would be subjected whenever the wind is high, is greatly lessened; *thirdly*, that, the season permitting, one or more sections may be advanced so as to form an awning in front of the tent. The three sections of the fly are placed upon the portion of the roof which we are presumed to have erected, each folded *outside in;* that is to say, each section being in its place, one half resting upon the portion of the tent it is to cover, the other half being thrown back over it. The fly having been thus placed for the moment, the section of the tent still supposed to be on the ground is lifted up, and beginning at the extreme end, the first button-hole is slipped over the spindle at the extremity of the standard over the door-way, and the button-holes, one after the other are fastened to the rings in the ridge-pole as already described. Before, however, the second section has been adjusted far, a small perforated block, or ball, two or three inches in diameter, is pushed down upon the spindle just mentioned, and the fly is pulled up, and the hole which will be found near its outer edge and corner is passed over the top of the spindle; as the second section of the tent is attached to the ridge-pole, the fly is drawn up and over on to the same side. Balls are placed on the spindles of the three remaining standards, after the two sections of the tent have been united upon them, and the flies are adjusted, as has already been described. The section of the tent is now brought forward over the frame-work, to which it is fastened, as in the first instance, and stayed out by cords similarly attached. The fly is then pulled down on either side, and fastened by cords to pickets driven into the ground, or to a bar, as shown in the Plate II. The fly is adjusted as in the common American hospital tents, except in not resting directly upon the ridge-pole; the balls placed upon the spindles separating the fly from the tent, permit the air to circulate more freely between it and the tent. (The ball is represented in Figure 4 by the letter *e;* its effect to separate the fly from the roof of the tent, *b*, will at once be seen.)

The tent, as now pitched, has four large unclosed openings; those at the ends are intended to be closed by light swinging doors; those at the sides with windows — not, however, necessarily, as will be seen by looking at the plate; a curtain can be drawn down to fill the space intended for the window, should it for any reason be difficult to obtain one. Ridge ventilation is provided for by louvres which can be opened or shut at pleasure. The ventilation will be chiefly secured, however, during cold weather, by the heating apparatus. During the warmer portion of the year, the side and end curtains can be rolled up, as shown in the plate; they are sustained by straps, which are employed when the tent is closed to attach the roof to the bars or plates which connect the upright posts.

The floor, if one is employed — and one always should be, if possible, in a permanent installation — it will be best to prepare before the tent is erected. The ground should be leveled; in fact, it would be well to remove six or eight inches of the top soil, and replace this with coarse gravel. String-pieces are then to be laid down lengthwise on the sides of the tent to furnish an attachment to the lower borders of the curtains; the other string-pieces should traverse the tent; they should be only large enough to support the floor, and should be forced into the gravel until their upper faces are level with its surface. When the flooring is laid, it will, therefore, rest directly upon the gravel. The floor will be made of rough unmatched boards, and it should always be covered by an impermeable oil cloth over its whole surface. Such a floor is perhaps as perfect as it is possible to have in a temporary hospital. It is solid, not dusty, contains no dead air beneath it; no foul matter can accumulate under it; it is non-absorbent of gases, and can always be easily and very perfectly cleansed.

But some one may ask, Why not allow the out-door air to circulate freely under the floor, as it did beneath the American barrack hospitals? This arrangement, permitting the out-door air to sweep them on every side, was supposed to contribute much to their healthfulness. But if the floor is impermeable, and contains nothing offensive under it, there is no reason why it can be desirable to secure a constant change of the air beneath it. Another and more weighty reason is this: if the out-door air were permitted to circulate freely beneath the floor of the tent, our ground heat during the winter would be lost. When the weather becomes cold, the tent should be heated by the introduction of hot air through a cellar and trench, the latter partially covered, and the heat being admitted through registers, as the tent pavilions of the American Ambulance at Paris were warmed during the winter of the siege. How important a factor this ground heat is, in the maintenance of a steady temperature within a tent was there shown. The doors, the upper portions of which may be furnished with windows, may be protected during the winter months by portals or vestibules. Paved gutters should be placed on each side of the tent.

It will be found advantageous to fix the tent in the manner indicated in Plate II. by attaching the tent-cords to parallel bars; not only is the inconvenience of cordage avoided, but the stability of the tent is thus assured. The tent is intended to accommodate sixteen patients. There is room for eighteen beds, but it will generally be found convenient to suppress two of these to gain room for furniture, etc. A tent constructed like the one described would be greatly superior to the American hospital tent for the organization of sedentary hospitals. It is much more spacious, and is relatively less costly. To form a pavilion fifty-six feet in length, four United States hospital tents are required. The canvas of the six ends which meet is superfluous; it is more than this, it is decidedly objectionable. It serves to form dead corners, and offers a large amount of material to be impregnated and infected by miasmatic exhalations. Dr. Evans's model is also peculiarly well adapted to serve as an annex to a civil hospital, not only for the treatment of surgical cases, but to meet the requirements of certain epidemics — cholera for example — the mortality incident to which disease is largely controlled by the general sanitary surroundings; and this fact was never more strikingly illustrated than in the Crimea, in the very first large tent hospital ever established.

PLATE I.

FIG 1.

FIG. 2.

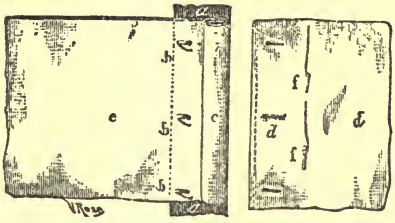


FIG. 3.

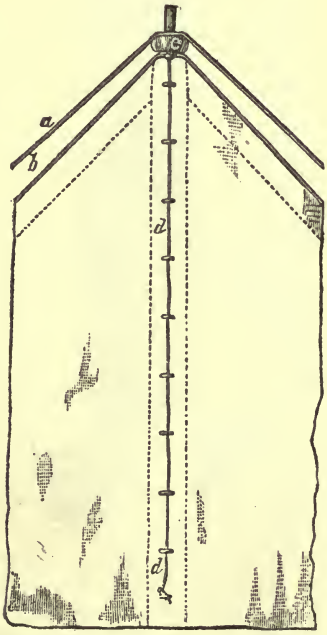
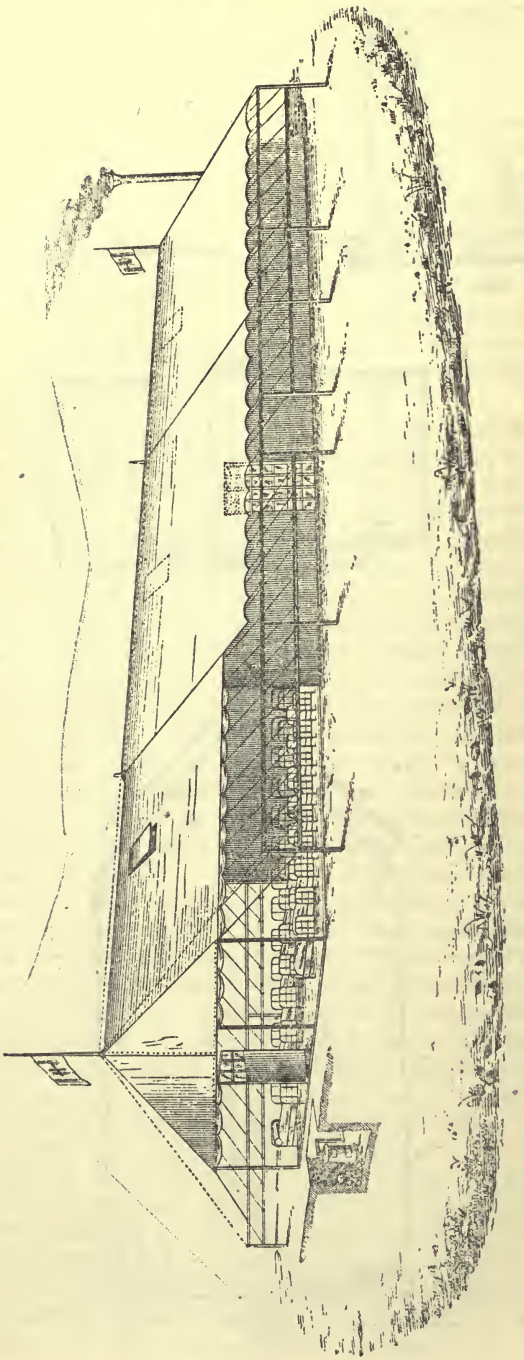


FIG. 4.

PLATE II.



THE DISCUSSION.

Dr. Elisha Harris. This subject is broader than the mere questions of humane charity to the needy sick, or of economy in such charity ; for the public health is greatly concerned in the proper settlement of the principles and methods by which contagious and infectious maladies, like typhus, typhoid, and puerperal fever, scarlatina, relapsing fever, and small-pox, shall be rendered least harmful to populations among which they occur. The suggestions embodied in Dr. Jenkins's paper are eminently practical, for he presents a simple plan for the institution of small hospitals, or of hospital care upon any limited scale, from one bed to five hundred beds, to meet such exigencies as may arise in villages and cities, or in any other communities, though it be among woodsmen and miners, or work-people anywhere.

The importance of such readily organized and economical methods of care for the sick and hurt, and especially of sanitary protection for the residents of districts where the need of such humane care has come, is illustrated every few months in the vicinity of New York, and along all the great thoroughfares in our country. This need is felt, as well as that which is more permanently present, for the institution of "village hospitals." But as respects the temporary hospital, it must be devised upon some plan like this now suggested by Dr. Jenkins. Recently, and for a period of some eight months, small-pox has prevailed in numerous hamlets, and in great companies of work-people along the eastern counties of the State of New Jersey. In some towns the people have set apart an old house in the locality for a pest-hospital. In most towns no hospital or strict sanitary seclusion has been ordered. Yet it would have been easy to provide such sanitary care, and make it the occasion and means of teaching how to save life and stamp out a pestilence. In a populous and commercial town on Lake Champlain, there has been so great a pestilence of small-pox, the past two years, that vast public injury has resulted from the absence of such simple and temporary hospital facilities as Dr. Jenkins has here suggested. Even the mere purification and disinfection of the dwellings in which the sick were distributed, has cost more than an entire hospital and outfit that would have arrested the pestilence.

Even for so delicate a malady as puerperal fever, or so gentle surroundings as are required for the proper care of its victims, and for the protection of lying-in-cases, when and where the puerperal fever poison is prevalent, the temporary hut-hospital is a priceless boon to woman in the families of poor laborers. This might be thought the last of all resorts for safety; but in many a town, and among many a poor shanty population of miners, laborers, or others, we have witnessed the want of temporary maternity cottages.

Listen to Florence Nightingale as she rehearses the reasons for adopting the simplest kind of structure for maternity wards, after noticing the causes that destroy the lives of from three to four per cent. of all mothers whose accouchement occurs in ordinary Lying-in-Institutions. She proves that in the rude huts which are devoted to maternity patients at the military barracks of Shorncliffe, out of 702 cases of accouchement, not a death has occurred from any puerperal disease, and only four from accidental causes. She remarks

that "it is an old wooden hut, of the simplest construction, with thorough ventilation. It is situated on a rising ground close to the sea, and facing it, so that the sea breeze sweeps right through it."

In Colchester (hut), there have been 252 registered deliveries and no deaths.

Experience has proved the practicability of establishing cottage hospitals for villages, and of hastily extemporized hospital apartments and simple shelter, and means of perfect care for the sick or hurt anywhere. We have at the Staten Island Cottage Hospital — the "S. R. Smith Infirmary" — and at the "Cooperstown Thanksgiving Hospital," perfect examples of success in this village hospital; and in England we can now count twenty such examples; while in the line of temporary and most hastily extemporized open-air hospitals, what could be more instructive than the testimony of our sanitary and surgical service in the late war? Who that visited the fields of Antietam, and saw among the seventy collections of wounded soldiers that model of canvas, and floored shelter at "Smoketown," under Dr. Vanderkieft's direction; or who at Gettysburg saw the same practices repeated, or at Winchester saw the "Sheridan tent hospitals," will ever doubt the practicability of instituting perfect hospital care and securing the greatest saving of human life in the tent hospital?

In the Quarantine hospitals of the port of New York, in 1855–57, I caused the costly and imposing brick edifices which the State had made for hospitals, to be closed and locked, and removed all my patients into the narrow wooden shanties, which had ventilation at the roof, at the floor, and between all the beds. The mortality of small-pox, as well as fever, was only half as great in those narrow shanties as it had been in the costly piles of great broad halls in the brick edifices. The hospital ship, which was hastily fitted up under my superintendence in 1859, and which for ten years had an unexampled smallness of mortality, and never communicated any disease to the attendants and visitors, was flushed with fresh air, and was absolutely clean from stern to stem. It was an example of simple means which secure success in the care of the most infections and deadly diseases.

In a report which Hon. Hamilton Fish, Senator from New York, made to the Senate some twenty years ago, there occurs the following recital of testimony in favor of tent hospitals. Having myself verified the facts by the aid of witnesses of the events recited, I beg leave to conclude these remarks by offering this as a kind of testimony which all citizens can fully appreciate. The chief portions of this testimony were contributed by Hon. James Parker and the late Dr. McKnight Smith of New Jersey.

. . . . . .

"In the month of August, 1837, a number of ships with emigrant passengers arrived at Perth-Amboy, N. J., from Liverpool. There was no hospital or other accommodation in town in which the sick could be placed, and no person would admit them into private dwellings, fearing the infection of the fever. They could not be left on board the ships. An arrangement was made to land the sick passengers, and place them in an open ward, adjacent to a large spring of water, about a mile and a half from town. Rough shanties, floored with boards and covered with sails, were erected, and the patients were taken from on board ship, with boats which landed as near the spring as they could

get, and carried them in wagons to the encampment (as it was called). Of the first thirty-six landed, twelve were insensible, in the last stage of fever, and not expected to live twenty-four hours. . . . . The number of patients at the encampment was increased to eighty-two. The ship was cleansed after landing its passengers, and, on board *four* of the crew were taken with the ship-fever, and two of them died. Some of the nurses at the "encampment" were taken sick with the fever, but they recovered. Of the whole number of eighty-two passengers removed from the ship, *not one died.* Pure air, good water, and perhaps the rain — (though only the first thirty-six were affected by it), — seem to have effected the cure."

The ship here mentioned was the *Phœbe*, with between 300 and 400 passengers. A number had died on the passage. The open-air hospitals at the encampment, which were erected in a single day, were two in number, thirty by twenty feet, and boarded up about four feet from the floor, on three sides, and an awning roof of old sails spread on poles above. The carpenters proposed to prepare the coffins which the first twelve (insensible and apparently dying) patients would require; but no coffins were needed. The four sailors who sickened on board the ship, after the emigrants were landed, were removed to a comfortable dwelling-house in town, received good medical treatment, and yet two of them died.

TRAINING-SCHOOLS FOR NURSES.

Dr. Jenkins, in his paper on Tent Hospitals, has referred to Miss Florence Nightingale, and her work in the Crimean hospitals and elsewhere long ago. It is not generally known in America, perhaps, what she has done since for the improvement of all hospitals, and the training of nurses. In tribute to her services among the British soldiers, a great subscription was raised in England at the close of the Crimean war; and the proceeds (some £50,000) were placed at her disposal, to establish a school for the training of hospital nurses, and a home for their support and protection. About the end of the year 1857, Miss Nightingale made over the control of this fund to the council of management whom she had before appointed, and of whom in recent years her brother-in-law, Sir Harry Verney, has been the chairman. In the spring of 1860, under the advice of Miss Nightingale, and in accordance with plans prepared by her, a small training-school for nurse-pupils (women) was provided for in the old buildings of St. Thomas's Hospital, in London; and on the 24th of June, 1860, the first fifteen pupils, or "probationers," as they are called, were admitted there. During the first two years thirty-nine pupils were received, of whom twenty-two completed their training of twelve months, and were registered as nurses. A considerable number of these graduates, then and since, have remained at St. Thomas's as regular nurses; and this is considered desirable for at least a year after they are registered as graduates. The cost of training these twenty-two nurses was about £1,800, or about $200 a year for each pupil who completed the course of training. At the date of the latest report we have seen (in May, 1873), the number of pupils in the St. Thomas school was about twenty-five; the whole number during the year preceding was fifty-six; and the yearly cost was something less than £2,000, or at the rate of something more than $300 a year for each pupil graduated and appointed as a nurse. At this time also the Nightingale Fund had accumulated to something like £53,000, — say $300,000 in our currency. The school is at present in the new hospital buildings, which were opened in September, 1871, and the "probationers" reside in a new house called "The Nightingale Home," opened about the same time with rooms for thirty-five nurse-pupils. The St. Thomas Hospital is by no means the largest in London, but contains about six hundred

beds, in something more than thirty hospital wards of various sizes. It is to this hospital and home that American ladies entered as pupils of Miss Nightingale's school would probably go.

There are, however, in England, several other successful training-schools for nurses, and one at Liverpool which has had from the first the aid and advice of Miss Nightingale herself. It was opened two years later than the Nightingale school above described (June 30, 1862), and had from the first the services of three or four of the graduates of that school. The Liverpool hospital, with which it is connected, is the Royal Infirmary, and in its first years the cost of maintaining a school of about twenty-five pupils was nearly £2,000 a year, or more than $400 for each pupil. The number of graduates seems to have been greater in proportion to that of pupils than in the Nightingale school; for at the end of 1864, after two years and a half of training, there were thirty-eight nurses actually at work, who had graduated at the Liverpool school. The cost of educating them had been less than £4,000, or something like $250 a year for each graduate. By the latest report of this school (for 1873), it would seem that a smaller number have graduated (only ten), and at a greater cost; but the exact figures of cost for each pupil cannot be made out from the printed reports. The number of nurses and nurse-pupils under pay at the Infirmary, on behalf of the training-school, was eighty in January, 1874; and their wages for the year had been £1,212; in addition to this, the cost of carrying on the school, and the home connected with it, had been £1,900. The wages of nurses were paid by the Infirmary, leaving only the cost of the home and school to be met by private liberality. This would seem to be now about £70 — say $400 in our currency — for each pupil of the average number in the school. At this rate, a school of fifteen pupils in Boston would cost about $6,000 a year, and one of twenty-five pupils in New York about $10,000 a year.

In connection with the Liverpool school, however, there has grown up a very extensive system of district-nursing among the poor at their own homes. The city, which is somewhat larger than Boston in population, is divided into seventeen districts, each of which employs one or more nurses; the whole number of trained and untrained nurses thus employed being about twenty at present. Their wages for 1873 were about £500, — say $150 for each nurse. The other expenses for district-nursing for 1873 were about £350; making the whole cost less than $5,000 in our currency. For this sum 4,034 poor persons were cared for in their various diseases; at the rate, that is, of a little more than one dollar for each case. Of these, 2,480 were cured, 330 were removed to the hospital or to the country, 550 died, 252 were dropped from the list, and 422 were under care at the end of December last.

Considering the small expense incurred, this is a remarkable statement of work done. In 1863 the number of sick poor relieved at their own homes was but 1,776; in 1871 it exceeded 6,000. We believe no such system of home-nursing for the poor has been established in America, though something is done in this way, both by public and private charity.

Nor has it been until within a year or two that training-schools for nurses have been opened in the United States. It may seem remarkable that the work of the Sanitary Commission in the Union army, and at the countless hospitals established during the civil war, should not have resulted in training women for nurses in ordinary hospitals, as was the case in England soon after the Crimean war. In fact, it did not; and yet Miss Schuyler, of New York, and several of the ladies of that city, who in connection with the "State Charities Aid Association" made the first movement for a training-school for nurses at the Bellevue Hospital, had been engaged in the work of the Sanitary Commission. It was not until 1873, however, more than a dozen years after Miss Nightingale had seen her school at work in London, that the New York training-school was opened under the charge of an English lady-superintendent. The general plan of the Bellevue Hospital school and home is very similar to that of the Nightingale school; and its success thus far has perhaps been as great, after making allowance for the fact that there was no Florence Nightingale in New York to advise and direct from an unequaled experience, and no such coöperation from the hospital authorities as was given at St. Thomas's. The New York school is now nearly twice as large as when at first opened in May, 1873; it has twenty-six pupils, who do the nursing in five wards of the Bellevue Hospital; and it has offshoots in Boston, Philadelphia, and New Haven, that are also doing a good work with fewer pupils. The Boston school was planned in the summer of 1873, and opened at the Massachusetts General Hospital in November of last year, at first with only eight pupils. This number has since increased to fifteen, and may be still further increased at the end of the first experimental year. The pupils live in a home near the hospital gate, and receive instruction in weekly lectures from the hospital physicians and surgeons, as well as from other physicians. Their daily duties as assistant nurses in the wards give them practical experience in nursing, while they are thus qualifying themselves by theoretical instruction. And, in spite of the many difficulties inseparable from the discipline of nurses in a large hospital under the divided allegiance which a training-school necessitates, American experience fully bears out what Miss Nightingale said in her "Notes on Nursing" many years ago:—

"With regard to an oft-disputed question, whether it is desirable to train

probationers entirely in a *public* hospital, I should say, without hesitation, it is there *only* that they *can* be trained; and every well-judging superintendent will tell you that the students, governors, steward, etc. (disagreeable as the collisions with them sometimes are), are the most valuable assistants in the training of her nurses. Whether in opposition or in kindness, she hears of all their shortcomings through the secular bystanders, which she would hear of in no other way. I have rarely known a nurse worth the bread she ate, whether religious or secular, whether Roman Catholic nun, Lutheran deaconess, Anglican sister, or paid nurse, who had not been trained under a hospital discipline, consisting partly of the secular man authorities of the hospital, and partly of her own female superior. I don't know which is the worst managed, — the hospital which is entirely under the secular men heads, or the hospital which is entirely under the superior of the nurses, whether religious or secular, whether male or female."

The experiment of providing trained nurses for hospitals, almshouses, district-work among the poor, and family nursing among all grades of society, has now been fairly begun in our country. In England it has succeeded, though by no means without many drawbacks and annoyances, as it had succeeded before in Germany and in France. It will succeed here, no doubt, if our country-women have patience enough to carry it through, and if our countrymen will do their part. As to its great necessity everywhere, nothing better can be said than was said by Florence Nightingale herself, in 1861, in a letter to the founders of the Liverpool training-school. These were her words: —

"Sickness is everywhere. Death is everywhere. But hardly anywhere is the training necessary to teach women to relieve sickness, to delay death. We consider a long education and discipline absolutely necessary to train our medical man; we consider hardly any training at all necessary for our nurse; although how often does not our medical man himself tell us, 'I can do nothing for you unless your nurse will carry out what I say.' All, rich and poor, have sickness among themselves at one time or another of their lives. It is singular that this necessity, which perhaps no one son of Adam has ever escaped, for himself or his belongings, is the only one we never provide for.

"Your plans are not only practicable, but promise extensive and invaluable good, — good which will spread to every town and district in the kingdom, if wisely inaugurated in Liverpool. Your district-nursing scheme especially deserves interest. I suppose every one will agree with me that every sick man (or woman) is better at home, *if* only he (or she) could have the same medical treatment and nursing there that he (or she) would have in hospital."

The facts above given in regard to the English schools have been taken from a set of reports and other publications lately sent to the American Social Science Association by Mr. Rathbone, of Liverpool, one of the managers of the training-school there. Through his efforts, and the courtesy of the managers of the Nightingale school, a place has been offered in the latter, as soon as a vacancy occurs, to some

well-qualified American lady who may wish to enter the Nightingale school as a pupil, and who is approved by the managers of the Boston school. The course of training is a year, as formerly; but a longer time could profitably be spent in the school, if it were permitted. It is to be hoped that one of our country-women fitted to receive the most advantage from the instruction there will avail herself of the opportunity thus afforded for a more complete training than can yet be acquired in any American school for nurses. In regard to the New York training-school, the "Tribune" has lately said: "The Nurses' Training-school, that has been established in Bellevue Hospital and which has been greatly extended since its inception, has furnished a large number of the best nurses in this city. Some of them are employed in the private hospitals, but the demand for their services in private families has been so great and the remuneration has been so much larger, that the hospitals have not been benefited so much as was expected. The numbers applying for permission to enter the school at Bellevue Hospital have been greater than their power to accommodate, and many have been turned away or obliged to wait until the next term."

F. B. S.

THE RELATION OF NATIONAL AND STATE GOVERNMENTS TO ADVANCED EDUCATION.

A Paper Read by Andrew D. White, President of Cornell University, May 22d, 1874.

The development of advanced instruction in our country thus far is a matter of which no patriot has much reason to be proud.

The University and Collegiate system originally transplanted to these shores, had as its centre the semi-monastic collegiate corporation which had survived the Middle Ages. Unfortunately, every condition of its growth was changed by that transplantation. Its historic roots were mainly torn away and it was pruned of all that was rich and beautiful in its Old-World bloom and fruitage. As to the exterior part, the Oxford quadrangle, with its provision for care of students, became, and has remained on this side the Atlantic, a barrack with no such provision. The Oxford Hall, with its noble appointments, became a sort of cheap dining-room. Instead of shady walks along the Cam and Isis, the college barrack was surrounded by a scrubby pasture.

As to the interior part, — the kernel hidden in this poor husk, — instead of the enthusiasm developed in the lecture-rooms of the Continental Universities, — instead of the steady work drawn out by the tutorial system of the English Universities, the cheaper methods of the English Dissenting Academies were adopted. So came that weary stifling business, so dear to pedants, but so fatal to advanced education, the "memorizing" of text-books and the "hearing of recitations." And to sum up all, instead of a group of colleges, bound together, stimulating each other, forming a single great university, the typical American institution for advanced education became, and in most cases has remained, a single college sadly deteriorated from its English pattern.

But, stunted as the plant was, it might have grown great but for a change in its new soil which produced a most disastrous change in its growth. The soil into which the English University System pushed its roots was the English Church. That Church was *one*, therefore the University System of England was one. Two great institutions grew up, large and robust. With all their defects they were strong enough to maintain the superiority of intellectual work through the most unintellectual period of modern civilization. They were sturdy

enough to stand firm against all the currents of Anglo-Saxon materialism. In the midst of the modern rank growth of an aristocracy of Birth and an aristocracy of Wealth, they lifted up on high an aristocracy of Intellect stronger than either.

But on this side of the Atlantic there was a different soil, a different atmosphere, and therefore a different growth. The roots of the higher education here were thrust down into various religious sects. As sects multiplied, colleges multiplied. Soon this multiplication began to show results most unsatisfactory. The main condition of success in advanced instruction is *concentration of resources*, but the sect-spirit led to the most wretched *scattering of resources*. Scores of feeble institutions were created, calling themselves colleges and universities; but all except a very few the most wretched caricatures of colleges and universities.

Nor was this the worst. The natural consequence of this sort of development was that the controlling principle in the vast majority of these institutions became love of sect-growth, and not love of individual growth. The main effort was to make learning "sound learning," — by which of course was meant learning in accordance with the methods and within the limits desirable for the sect in control. This was rendered all the more natural by the fact that various sects sometimes found their colleges convenient asylums for their unsatisfactory pastors, and their professorships comfortable shelves for men not successful in their pulpits. This was rendered all the more easy by a current superstition that if a clergyman is a dull preacher he is probably a profound scholar. The result was, that the strong and devoted men holding professorships were often hampered by incompetent men whose main function seems to have been to hear young men parrot text-books by rote in the recitation-room, and to denounce "science, falsely so called," in the chapel.

Such is the main outline of the development of the prevailing system of American collegiate instruction; and if its history is, in the main unsatisfactory, its present condition is mortifying.

This system of advanced instruction is now an old one. The time has arrived when it may be fully and fairly judged. It has been developing more than two hundred years. By this time, if ever, we may expect to see a great, strong growth, a luxuriance of beauty in bloom and perfection in fruit. But what do we see?

The last Report of the United States Bureau of Education gives the names of over three hundred and sixty institutions calling themselves colleges and universities. With very few exceptions these are without anything approaching complete faculties, without libraries worthy of notice, without collections of natural science, without laboratories, with

next to no modern apparatus or instruments. This is true of the whole country; but more especially true of all the States in the Union outside of the original thirteen.

But this is not the worst. Many admirable men stand in the faculties of these institutions — men who would do honor to any institutions for advanced learning in the world. After much intercourse with university professors of various nations, I feel assured that I have never seen any approaching in natural strength and earnestness many in our country, and I have heard this remarked by more than one among my thoughtful American fellow-students while sitting in foreign university lecture-rooms. These men of ours would, under a better system, develop admirably the intellectual treasures of our people and the material resources of our country; but, cramped by want of books, want of apparatus, want of everything needed in the higher education, — cramped above all by the spirit of the sectarian college system, they seem in many cases paralyzed.

I know whereof I speak. Within the last twenty years I have seen much of these institutions. Within the last seven years I have made it a duty to study them closely. In our Eastern States matters are somewhat better; but even in these the prevailing system gives few growths to be proud of, considering the age of the system. In most of the other States the results are wretched. Go through one great State after another; in every one you shall find that this unfortunate system has produced the same miserable results. In the majority of our States not a single college or university worthy the name — only a multitude of petty sectarian schools, each doing its best in the pulpits of its sect or the lobbies of its legislature to prevent the establishment of any system or institution broader or better.

The traveller arriving in a western State lands in a railway station costing more than all the university edifices in the State, and he sleeps in a hotel in which more capital is embarked than in the university endowment for millions of people. He visits asylums for lunatics, idiots, deaf, dumb, and blind, and he finds them palaces. He visits the college buildings for the young men of sound mind who are to make or mar the future of the State and finds them vile barracks. He inspects these asylums for those who are never more to be useful and finds them provided with the most perfect systems of heating and ventilation. He visits the dormitories, recitation-rooms, and lecture-rooms where live and move the young men who are fitting for careers of usefulness, and he finds them with systems of heating which poison the air and with no ventilation. He examines still further, and finds that the inmates of asylums have good food well prepared; he finds the inmates of colleges generally supplied with poor food wretchedly

prepared. He finds young men of sedentary habits and scholarly pursuits living in families where vinegar and grease are combined, by the worst cookery in the world, to form a diet which would destroy the stomachs of woodchoppers; in fact, insufficient as is the intellectual training at such places, the physical training is worse, for it tends to make the great body of students sickly and weak and morbid, rather than strong pioneers of good thought, and sturdy bulwarks against political folly.

I have not overdrawn the picture. I might go on to show other evils resulting from the wretched system prevailing in most of our States. I merely submit that the prevailing system of sectarian college or university instruction is proven by its past history and present condition to be utterly inadequate to meet the needs of the country, especially in the younger States of the Union; and it is in view of this past history and present condition that I present the following as my fundamental proposition: — *The main provision for advanced education in the United States must be made by the people at large acting through their legislatures to endow and maintain institutions for the higher instruction, fully equipped and free from sectarian control.*

I argue, first, that *the past history and present condition of the Higher Education in the United States raises a strong presumption in favor of making it a matter for public civil action, rather than leaving it mainly to the prevailing system of sectarian development.*

Now I have already shown how the prevailing system has grown, and into what it has grown; let me sum up by stating a few facts universally acknowledged.

As to Universities, our prevailing system has failed in two hundred years to develop one which ranks with institutions bearing this name in other civilized nations, — some of them of more recent creation than our own. The University of Berlin is younger than a multitude of American colleges. It was built up to its highest pinnacle by a nation which until recently was poor, struggling, and almost crushed by military disasters and financial burdens. Yet no one will claim that we have any institutions for advanced instruction to be compared with it.

As to schools of Mechanical and Civil Engineering, we have developed some which have rank in our country, but we have none which will take rank with a multitude of such schools on the Continent. To say nothing of older institutions like the French Polytechnic, we have no advanced schools to compare with the recent creations at Stuttgart, and Carlsruhe and Zurich.

As to Laboratories, all these years of work in America, mainly shaped by the prevailing system, have failed to give us one to compare for a moment with several recently erected at Leipzig, Berlin, and elsewhere, by government aid.

As to Museums illustrating science applied to the Mechanic Arts, all our collections combined would be but as the small dust of the balance compared with the single collection at the French *Conservatoire des Arts et Mètiers.*

As to collections to promote Æsthetic instruction bearing on various industries, if we were to add together all that our American university system has accumulated, and multiply the sum by thousands, we should have nothing to approach the newly created English schools at South Kensington.

As to various branches of instruction, we have had men in all departments equal to the best in Europe; but for want of a university system to give scope to their ambition, we have seen them very generally make the professor's chair only a stepping-stone to various professions; so that American students have been forced to go abroad for advanced study in almost every department. Even in the history of their own country, no full professorship of American History has been in operation in our land, and to study this history young men have gone to Europe to sit at the feet of Laboulaye at Paris, and Neumann at Berlin, and Kingsley at English Cambridge.

While I argue, then, that such a meagre growth for two hundred years under the prevailing system raises a presumption that it is a system not suited to this land and time, I argue that *the very brief history of unsectarian institutions and those fostered by State and National care strengthen the presumption that the latter is the system on which, at least outside the oldest States, we must rely for a higher education worthy of our country and time.*

The first good attempt to give to this country a true university as distinguished from the American deterioration of the English College was made by State action in the creation of the University of Virginia. The prevailing sectarian system profited not at all by this example. The great universities of Germany grew into their modern state, nurseries of the love of learning and the love of freedom; but the sectarian college system of America went on multiplying the usual poor imitations of English colleges, when public civil action gave the beginning of another university; the combined bounty of the National and State governments, wisely administered, gave to the country the University of Michigan.

As to Scientific and Technological instruction, our country waited for years after such advanced instruction was given in Europe; but there came only scattered and feeble efforts, and the first great and comprehensive system which gave a college for applied science to every State in the Union was established by the Congressional Act of 1862, supplemented by the various acts of the State legislatures.

As to the illustration of Natural Science, the one collection in the United States that has an acknowledged rank throughout the world, is the one fostered by the wise and careful bounty of the State of Massachusetts at Cambridge.

And as to education in Morals, — that very education of what is best in man, which is claimed as the especial *raison d'être* of the prevailing sectarian system, — the only institution which is popularly recognized as strong enough to impress into its whole teaching a sense of duty deep enough to hold its own against the immoral tides of these times, — the only one which, when graduates of all other institutions fail, is by common consent appealed to to give managers to our railways who will not plunder, investigators of our mines who will not lie, negotiators with our Indians who will not cheat, is the government college at West Point.

But I argue, next, that *careful public provision by the people for their own system of advanced instruction is the only Republican and the only Democratic method.*

While I hail with joy supplementary private gifts, when not used as fetters, I maintain that there can be no system more unrepublican than that by which a nation or a state, in consideration of a few hundreds of thousands of dollars, delivers over its system of advanced instruction to be controlled and limited by the dogmas or whimsies of living donors or dead testators. In more than one nation, dead hands stretching out from graves closed generations gone, have lain, with a deadly chill, upon institutions for advanced instruction. More than one institution in our own country has felt this grip and chill. The progress of civilization in the Old World has tended more and more to the building up of its education in accordance with the needs of living men rather than the anticipations of dead men. My position is, simply, that *if we are to govern ourselves in anything we ought to govern ourselves in this;* and that, if in matters of far less importance we will not allow our rights, duties, and wants to be decided upon by this or that living man, we certainly ought not in a matter of such vast importance as the higher education of our children to allow our rights, duties, and wants to be decided upon by this or that dead man.

Again, I argue that *public provision — that is, the decision and provision by each generation as to its own advanced education — is alone worthy of our dignity as citizens.*

What would be thought of a State which refused to build its State House from its State treasury, and, on the ostensible ground that private giving is good for the donor and honorable to the State, begged individuals to build its various parts? Should we not have a result exactly typical of what is exhibited in the prevailing system for advanced

instruction? We should, probably, if fortunate enough to get anything at all, find, after a century, an edifice perfectly typical of what has been given us in our similar system in advanced education? A Roman tower of brick here, a Gothic spire of stone there; a Greek pediment of wood here, a Renaissance cupola of iron there; a Doric column of porphyry next a Corinthian column of sandstone. No fitting approaches because no one had given anything so humble; halls too small and door-ways too narrow, and windows askew in accordance with this or that dead man's whimsey.

But this is the least. Suppose that we really get our building thus constructed; what would be thought of the policy which should leave the State building thus erected to be controlled forever, as to its use and occupancy, by living and dead donors, ancient and modern, and by their medley of ideas, forcible and feeble, crude and thoughtful, shrewd and absurd.

And if this system is incompatible with State and National dignity as regards a mere pile of stone and mortar, how much more so when there is concerned the building an edifice of the best brains and hearts of living men, and the control of a great system of advanced education in all its branches for the entire nation — for all generations.

Again, I argue that *by public provision can private gifts be best stimulated.*

We have had in our country many noble examples of munificence towards institutions for advanced instruction, but no one thing seems to have stimulated them so much as the public endowments which have aroused discussion and afforded objects to which citizens of all creeds could contribute as a patriotic duty.

Take, as an example, the Congressional grant of 1862, to National Colleges, for Scientific and Industrial instruction. The recent reports of the United States Commissioners of Education show that gifts have been aggregated about these nuclei to the amount of over eight millions of dollars. Let me refer to an example within this State of New York. The national grant was concentrated upon one institution, — the Cornell University. This encouraged thoughtful and liberal men to hope that something worthy of the State might be built upon that foundation, and the result is, that in eight years there had been added to that original endowment private gifts to the value of over a million and a half of dollars. And so far as I can learn, none of these gifts would have been made but for the object afforded by the national grant.

I argue, next, that *by liberal public grants alone can our private endowments be wisely directed or economically aggregated.*

No one conversant with the history of advanced instruction in this

country can have failed to see the wretchedly absurd way in which large gifts for advanced instruction have been frittered away under the prevailing system. There is hardly a State in this Union where the sums, large and small, that have been scattered among a multitude of petty sectarian institutions called colleges and universities, would not have produced one institution of great public value, had these gifts been directed to one object and aggregated about one nucleus.

Compare two Western States lying near each other, Ohio and Michigan. The State of Ohio has had every advantage over its northern neighbor as to population, soil, wealth, communications with the seaboard and priority of complete occupation; but as regards advanced education, it stumbled into the policy of scattered denominational colleges supported by beggary.

The State of Michigan took its National grant — developed upon that a State University, and from time to time its State legislature has added judiciously to the grant. Note now the result: the great State of Ohio has within its border not one college or university well equipped in any respect — not one which rises above the third or fourth class. On the other hand, the State of Michigan has a noble university of the first rank in our land, with over a thousand students; and, what is of vast importance, the presence of such an institutution has strengthened the whole system of public instruction throughout the State. No State has a more admirable series of primary schools and high schools — none has a better normal school — none has a better agricultural college. The system has been pronounced by thoughtful men from other States, the best in the Union; and the whole secret of excellence is that by a wise and liberal public endowment a proper direction was given to private endowment. The difference between the two States I have named is, that in Michigan a public endowment gave statesmanlike direction to private efforts, while in Ohio all was frittered away and scattered between the clamors and intrigues of sects and localities.

So much for the *direction* of endowments. Look now at their *aggregation*: take the facts as they stand — and I will mention cases well known. A weak denominational college in one of our States has received from a friend a great telescope worthy of the greatest institution in the world; but hardly any one else has given the institution anything. There is no gift of a well equipped observatory, or provision for an observer, and the telescope might as well never have been given.

On the other hand, another denominational college has received the gift of a splendid observatory; but no one has added a gift of money for a telescope and other instruments. So the prevailing system gives you at one college a useless telescope and at another a useless observatory.

I know of another denominational institution which has received a splendid geological collection; but as it has no provision for a geological laboratory, or for a geological professor, the collection would for all scientific purposes be as useful in Tartary.

I know another denominational institution which received from a denominational friend a splendid herbarium; but from the day it was received it has never been used, for the reason that no other member of the denomination has provided a Professorship of Botany.

I know another institution of this kind which has received an excellent collection in Mineralogy; but all appeals from the denomination to which it belongs have failed to secure an endowed Professorship of Metallurgy, and it would be money saved had the collection never been taken out of the earth.

Compare this with the example I have just mentioned. The nation gave a moderate grant of land for a university to the State of Michigan. The State legislature added to it judiciously. Thus was built up one great institution. The result is, that from various parts of the State, and from other States, gifts have been aggregated about the nucleus thus formed. Thus was provided both a telescope and an observatory; thus has its library been enlarged; thus were developed its illustrative collections. They are a matter of State concern and State pride, and individual gifts come in from all sides more and more to supplement public gifts.

The same in a less degree may be seen in several other universities; the only difficulty in these cases is, that public gifts have been too small to give the system a fair and full trial.

But I argue, next, that our *existing public school system leads logically and necessarily to the endowment of advanced instruction.*

For years the prevalent American practice has divorced the primary and secondary from advanced public education. Never was a system more illogical. Never did a system more fully show its unreason by its results.

Go to any teacher's institute; even in States where the public school system is best developed; you shall find that the directors employed to conduct it are obliged to ground multitudes of teachers in matters which children of ten years, under a good system, would fully understand.

Go to any college examination room, and you shall find that teachers in the public schools, endeavoring to enter our colleges, are constantly rejected for the most absurd blunders in simple orthography, grammar, and geography.

Go to our public schools, and you shall often find that while the teacher is administering English grammar theoretically to a few

scholars by formal parsing and endless memorizing of the rules, he is, by his ordinary conversation, teaching his whole school, practically, to outrage every rule of grammatical speech.

You ask, Why this low level in our great public school system? I answer, Simply because your teachers, as a rule, are those whose whole culture and power have been gained only in the public schools. As a rule, the teacher is too often a pupil who has barely learned enough in the school to be passed by a rural school committee. It is simply "breeding in and in," and that system of breeding will destroy any race, whether of kings, teachers, or beasts of burden.

Go now to any German public school, even the humblest: no text-book parrotting there — no mere work by rote. Why? Because strength and vigor are poured into them constantly; not from other schools of like rank, but from institutions above them, — from normal schools, high scientific schools, and universities.

When we attempt to divorce advanced from preliminary education, we are simply persisting in cutting the whole mass of branches and boughs and blossoms of education from the trunk; and when we succeed in rearing goodly trees by persistently sawing off all their upper growth and leaving the bare trunk, then and not till then can we have goodly primary and secondary public schools when we cut off from them the whole development of higher education. Again I cite the case of the State of Michigan. Its university, in which its whole system of public instruction culminates, has shed light and life into its high schools, and these, again, into the great mass of secondary and primary schools. The best graduates are constantly going into the teacherships of the high schools, and their best pupils into charge of the primary schools. These last, in their turn, send up their best men through intermediate grades to the university. The result is a system of which the whole State is becoming proud, — one which puts to shame the feeble anarchy prevailing in the education of most of her sister States.

If there should be public provision for any education at all, it should be a good provision; and there can be no good provision for any part of a system of public instruction which does not develop every part fully and all parts harmoniously. To be a good system, it must be a living system, and it cannot be a living system unless its growth be complete. If its highest parts are left to wither, its trunk and roots will wither also.

Again, I argue that the existing system of *public endowments for advanced education in matters relating to the military and naval service, leads logically to public provision for advanced education in matters relating to the civil service of the nation.*

If the preservation of the national honor is the ground for public provision in one case, it is the ground in the other. Nay, if the preservation of the national existence is the ground in one case, it is the ground, not less in the other. The number of persons in military and naval service is less than 20,000: the number of those in civil service, counting in National and State officials, is probably ten times that number.

See where the hap-hazard system of public advanced education, doled out to a great nation by various sects, has led us. From one end of the country to the other, there is not a regular permanent provision for really advanced instruction in the history of the United States. Look the whole number of 360 colleges through, and you do not find, save in one or two, any regular provision for instruction in Political Economy and Social Science. Take the plainest results as regards Social Science. Every year the cost is fearful. Nearly forty State legislatures, and nearly forty times forty county and local boards, dealing with matters relating to pauperism, crime, lunacy, idiocy, the care of the deaf, dumb, and blind, making provision regarding them at a cost of millions on millions, and very rarely with any fundamental study of the complicated questions involved. Yonder is England suffering from errors in these respects made centuries ago. Here are our States repeating many of the same errors.

Take next the simplest results as regards Political Science. Look at our national legislature, containing always a large number of strong men, and patriotic men; but the strongest of them often given up to theories which the most careful thinking of the world, and the world's experience as recorded in history, long since exploded.

But the analogy extends beyond the internal affairs of our nation and States, it extends to our external relations. I do not speak of the diplomatic service, though the want of higher knowledge with reference to that has long been felt, but I allude to an analogy of another sort forced upon us by these times.

I start again with the premise universally conceded, that public provision is necessary to fit men to take part in warfare by land and sea, to hold our country in the position she ought to occupy among modern nations. But the warfare to which men are educated at West Point and Annapolis, is not the only warfare between modern States. The greatest modern warfare is rapidly becoming an *industrial warfare.* Every great nation is recognizing this. But the most striking thing about it is a change in its methods. The old system of waging war by tariffs and bounties is yielding to the system of developing national taste and skill by *Technical Education.* That is the meaning of the great Expositions of Industry of the last twenty-five years. That is

the meaning of all the great institutions which modern states are providing for higher education in the sciences bearing on the various industries — education to enable nations to hold their own among modern states — education in civil, mechanical and mining engineering; in the application of the natural and physical sciences to agriculture and manufacture; in the arts of design as applied to various fabrics.

This warfare is as real as the other. The army engaged in this is larger than that engaged in the other. It is on our side eight millions strong, and the nation which leaves education regarding it to the driblets which can be wheedled out of individuals by sectarian appeals, will find that it has neglected some of its highest duties, and abdicated some of its noblest functions.

Again, I argue that *not only does a due regard for the material prosperity of the nation demand a more regular and thorough public provision for advanced education, but that our highest political interests demand it.*

From all sides come outcries against the debasement of American politics, and especially against gross material corruption. No doubt a great part of these cries are stimulated by sensation mongers; still enough remains to give much food for serious thought.

Now I assert that, as a rule, our public men who have received an advanced education, have not yielded to gross corruption. Understand the assertion. It is not that men who have not had the advantage of an advanced education yield generally to corrupt influences; far from it; some of the noblest opponents of corruption we have had, have been men debarred by early poverty from thorough education. But what I assert is this. Go among the men who disgrace our country by gross corruption; whether in City, State, or National councils, and you find the great majority of them in the class that has received just education enough to enter into the struggle for place or pelf, and not enough to appreciate higher considerations.

The preliminary education which many of our strong men have received, leaves them simply beasts of prey. It has but sharpened their claws and whetted their tusks; but a higher education, whether in science, literature, or history, not only sharpens the faculties of a man, but gives him new exemplars and ideals. His struggle for place or pelf is, as a rule, modified by considerations to which a man of lower education is very often a stranger. He is lifted up to a plane from which he can look down upon success in corruption with the scorn it deserves. The letting down in character of our National and State councils has notoriously increased just as the predominance of men of an advanced education in those councils has decreased. President

Barnard's admirable paper showing the relatively diminishing number of men of advanced education in our public stations, decade by decade, marks no less the rise, decade by decade, of material corruption.

This is not mere concomitancy, there is a relation here of cause and effect.

If we are to have more statesmen of that high type which is alone worthy of a republic, we must have better provision for educating the young men of rude strength who are coming up in all parts of our country, and especially in our great States of the West. We must provide an education that shall lift them above mere mammon-worship, into those realms where the great thoughts of great men give the atmosphere in which can best be cultivated a sense of duty to God and to country. To give better men for public stations, you must make provision for instructing our strongest young men which shall lift them above the prevalent idea of life among such multitudes of our successful men, — the idea that life is a game of grasping and griping for forty years, with a whine for God's mercy at the end of it.

And finally, I insist that *it is a duty of society to itself — a duty in the highest sense — a duty which it cannot throw off, to see that the stock of genius and talent of each generation shall have opportunity for development, that it may increase the world's stock and aid in the world's work.*

Of all the treasures of a state the genius and talent of its citizens is the greatest, but it is just that treasure which the whole history of civilized states shows that private cupidity and the law of supply and demand will not develop.

But I am met here first with an undue extension of the *laissez faire* argument. It is said that the best policy is to leave the building up of such institutions entirely to private hands; that such a plan educates the people to give — makes them self-reliant.

The latest form of this argument was put forth in the National Association of Teachers last year, at Elmira, in a speech by the president of one of the foremost of the older colleges.

Now I do not yet take up the question of a single national university at the national capital; but when the distinguished President of Harvard College condemns by implication — as in the speech to which I have referred he certainly does — all public provision for advanced instruction, whether by Nation or by State, I stand amazed. At its very beginning, the university over which he presides had aid from the State in which it stands, and it has not been slow to accept public aid at various periods since. In these latter days, its greatest glory — its Museum of Natural Science, is largely the result of constant applications to the legislature of Massachusetts. The whole country has rejoiced that the State of Massachusetts had the practical good sense

to grant funds for carrying on the great work of Professor Agassiz at Harvard. And they rejoiced, also, when the liberality of the State stimulated a noble growth of private liberality.

But this is not all. So far as the public has learned, there stands in the annals of that venerable university no record of any rejection of favors — even from the National Government. The benefits accruing to that institution from the Coast Survey are well known; and when rich spoils came to it from the dredging expedition of the *Hassler*, I remember no Spartan voice raised to repel them.

But grant that the argument against public aid is good at Harvard, it is good hardly anywhere else in this country. It certainly cannot be held good at Yale, or at Dartmouth, or at Brown, or at Rutgers, or at the University of Vermont, which received the national grant of 1862 for promoting the application of science to industry, and are making a most noble return for the gift.

Grant that Harvard can now dispense with public aid (although her recent history looks so little like it), it does not at all follow that the other institutions of the country can dispense with it. Close under the shadow of the palaces and warehouses of a metropolitan city, that institution, to the joy of us all, is the recipient of splendid gifts from princely merchants and munificent scholars. But how few of our colleges have the advantage of being near such a vast accumulation of capital.

Nor is this all. Harvard can afford to speak complacently to her young sisters, for she is enjoying the accumulations of two hundred years; but *are the Western States to wait two hundred years?*

Here is the whole question: the prospect held out to the younger States is, that those of their colleges which happen to be near great centres of wealth may, in a century or two, arrive at the position which Harvard has now attained.

But I come to the second part of the objection. Is it necessary that public provision be withheld in order that private persons may give and that public spirit may thus be cultivated? Even if it be so, I fail to see force in the argument. As well might President Eliot argue against any public provision for policemen, in order that individuals might toughen their muscles in fighting ruffians; or against any public provision for prisons in order that individuals might sharpen their minds in outwitting thieves. The history of the private gifts for education crystallized about the various public gifts and especially about that of 1862, shows that well-thought out, well-directed-public bounty like that in Mr. Morrill's Act, stimulates private bounty. It shows that Americans will give where they see something well-established to which it seems worth while to give. "To him that hath shall be given," is the rule for advanced education.

The *laissez faire* argument is good against government provision for those things which private persons may be fairly expected to establish and maintain from expectation of gain; but all history shows that advanced education is not one of those things. The greatest modern apostle of the *laissez faire* principle — John Stuart Mill — on this and other grounds, especially excludes education, in all its grades, from the operation of the *laissez faire* principle. He demonstrates that no nation has the right to leave education to the laws of supply and demand, or to the sums dribbled and doled out by ill-considered philanthropy. I give his words: —

"But there are other things of the worth of which the demand of the market is by no means a test; things of which the utility does not consist in ministering to inclinations, nor in serving the daily uses of life, and the want of which is least felt where the need is greatest. This is peculiarly true of those things which are chiefly useful as tending to raise the character of human beings. The uncultivated cannot be competent judges of cultivation. Those who most need to be made wiser and better usually desire it least, and if they desired it, would be incapable of finding the way to it by their own lights." "It will continually happen, on the voluntary system, that the end not being desired, the means will not be provided at all, or that the persons requiring improvement having an imperfect or altogether erroneous conception of what they want, the supply called forth by the demand of the market will be anything but what is really required. . . . . *Education, therefore, is one of those things which it is admissible, in principle, that a government should provide for the people. The case is one to which the reasons of the non-interference policy do not necessarily or universally extend.*" [1]

But, it is said, "*Universities publicly endowed will overshadow the existing colleges.*" Doubtless this would be the case with many of the weakest ones in the newer States; but is that a hardship? If there is anything in the matter of education for which Michigan and California, and Wisconsin and Minnesota, have reason to bless their early statesmen, it is just this creation of State Universities which have overshadowed the whole crop of little sectarian colleges and universities, or rather rendered them impossible.

While the whole work of feeble sectarian colleges might thus be weakened, I firmly believe that the really strong colleges and universities, even those which have grown up under the old system, would be greatly strengthened thereby. This is not mere theory, Look at the history of advanced instruction during the last ten years. Several of our older institutions were ten years ago in a state of torpor, or of very

[1] Mill's *Polit. Econ.* book v. chapter xi.

moderate progress, to say the least. What was the beginning of a new order of things at Harvard? Notoriously the famous pamphlet of Dr. Hedge, holding up the system and the work of the University of Michigan. From that publicly endowed institution in the West, came a very strong impulse to university growth, as distinguished from collegiate growth, in the East. The interest in university progress at Harvard and Yale, and Amherst and Princeton, and Union and Lafayette, and Washington Lee College and Cornell University, have unquestionably been aided by the spirit thus aroused. *What is wanted in this country is examples which will stamp into the mind of our people what a university ought to be.* Show an example of this sort to the friends of the really strong old colleges, so that they can really understand it, and they will give liberally to build up their older colleges as nobly as any new ones. Let any State develop its university never so high, the alumni of Harvard and Yale, and Columbia and Amherst, and Brown and Princeton, and Union and Rutgers, and others of like vigor, will not let their own colleges be behindhand.

Still another argument in opposition runs as follows: "No institution can be Christian unless there be some denominational dogma as its basis; a publicly endowed institution cannot accept any denominational basis, therefore it will be infidel or atheistic," — or to put it in shorter form, "*a university must be sectarian in order to be Christian.*"

To say nothing of other difficulties, one fatal difficulty with this argument is that it proves too much. As Bishop McQuaid, of Rochester, recently urged with great cogency, this argument, if good for anything against institutions of advanced instruction, is far stronger against our whole common school system. The simplest view of the subject shows us that there is far more reason for requiring sectarian schools for children, who cannot provide for their own religious wants, and who are at the most tender and impressible period, than for young men whose fundamental ideas have been, in great measure, formed and who have free access to multitudes of devoted clergymen and to the Christian associations, and various good appliances common in a Christian country.

But it is said, "*Institutions for advanced instruction are for the wealthy —for rich men's sons — and not for the poor.*"

Nothing could be more wide of the fact. The rich man is indeed vastly interested, *indirectly;* for thorough provision for advanced education will raise up a thoughtful class of men who are the natural enemies of all the wild theories which tend to desolate society; but if any person is more than another fully and directly interested, it is the poor man. The rich man can send his son to another State, or to another country; the poor man cannot. The doctrine I advocate is the only one which in many parts of our country can insure a worthy edu-

cation to the sons of poor men. The whole experience of the world shows that from the ranks of poverty comes by far the greater part of the genius and talent and energy of the world. In the great majority of our States, this great class, disciplined by poverty, have no chance for any advanced education, either in applied science, or in civil engineering, in mechanical engineering, or in mining engineering, or in kindred departments; and very little chance in any other, unless there be public endowments for advanced instruction.

But it is said, "*Your legislatures and public authorities will manage such trusts badly, and appoint unfit persons to professorships.*"

Some will at first, most will not. Save in one or two cases, no such charge can be made against State management of over thirty-four State universities and colleges, and a still greater number of normal schools. Nor is it made against the management by the United States of the National Academies at West Point and Annapolis, or the Smithsonian Institution under the very eaves of the National capitol. Favoritism and mismanagement are likely to be far greater in the great brood of denominational colleges, each one of which has to propitiate the "leading men of the denomination."

And now, in conclusion, let me sum up briefly and show, if I can, what our practical policy should be in carrying out the general principle I have advocated. Let us see if we cannot get out of the realm of theory into the realm of practice.

And first, as to practical dealings with the question *in the newer States.*

Now there is one very fortunate thing in this whole matter, and that is, that as regards public provisions for education in the new States, there is already a National and a State policy, based on the right principle and tending in the right direction. It has not been carried out with sufficient liberality or sufficient continuity; still it has been always in one direction, and that is, I think, the right direction.

In accordance with this policy the Congress of the United States gave the newer States, first, a grant of land to serve as a nucleus-fund for primary and secondary instruction.

Secondly. Congress gave these States a grant to serve as a nucleus-fund for University instruction.

Thirdly. Congress has given to the new States as well as old a grant, to serve as a nucleus-fund for instruction especially in sciences bearing on the great industries.

This national policy has been supplemented by a State policy. All of the nucleus-funds provided by the nation have, as a rule, been increased by the States receiving them.

This National and State policy, thus in harmony, has begun to be

crowned by an individual policy. Already individuals are beginning to aggregate gifts about the funds thus provided by the nation and the State.

Here, then, is a policy distinct and consistent.

So far as it has been carried out it has worked well. The only difficulty is, that it has been carried out too slowly and timidly; what I advocate is, that it be carried out firmly and logically. I would have Congress strengthen the foundations it has laid in these States — thoughtfully and liberally — in view of the vast populations that are to reside in those States and in view of the absolute necessity of having strong centres of enlightenment in those vast populations.

Next, as to State policy, I would have it go in the same direction as heretofore, but with a liberality and steadiness showing far more foresight, I would have those States build up higher — upon the foundations laid by national grants — their public institutions for advanced instruction as distinguished from private sectarian institutions. I would have each State build up the one institution under its control rather than the twenty under control of dioceses and conferences, and synods and councils, and consistories and presbyteries, and denominational associations of various sects.

I would have Michigan develop more completely her excellent agricultural college at Lansing, and add a department of technology and a mining school to her university at Ann Arbor. I would have Illinois strengthen her industrial university at Champaign, and Arkansas hers at Lafayette. I would have Missouri strengthen her State university at Columbia and her mining school at Rolla, and Iowa strengthen her State college at Ames, and Minnesota her State university at St. Anthony, and California go on as she has recently done so liberally in strengthening her university at Berkeley, and Kentucky hers at Ashland, and so with the rest.

This is a policy which may be sighed over or scolded at by those whose whole system of public action consists, not in promoting a practicable plan, but in sighing over or screaming at everything supposed to contravene ultra doctrines of non-interference and the ultra *laissez faire* policy, but it is a policy which will give us thorough provision for advanced instruction — and, judging from experience, the only one.

Let me sum up now the whole case in one statement, based on facts presented in public reports, which I ask you as thoughtful men to ponder.

In not one of the States outside the original thirteen has there yet been established, by private enterprise or sectarian zeal, a college or university with a faculty approaching completeness as to numbers, or with a general equipment which reaches mediocrity. In the whole

number of such sectarian institutions there is not one complete faculty — not one library, laboratory, observatory, or illustrative collection worthy of even the third rank — even judging by our American standard. This is the outcome of nearly a century of effort under the principle of scattering resources for advanced education in accordance with the demands of sectarianism, rather than concentrating them in accordance with the plans of statesmanship.

So much for the great new States.

Turn now to the *older States;* what should be our policy with them? Wise statemanship dictates that we be not fettered by a single theory or doctrine, no matter how good in the abstract. The older States having had more time for developing institutions for advanced instruction, and not having scattered resources with such utter prodigality as the new States have done, have built up a small number of colleges and universities of real strength. On these foundations I would have public grants and private gifts combined.

Here too, fortunately, there is a well-defined National policy, and to some extent a State policy.

The National Government acted in accordance with it when it gave the grant of lands for general and scientific and industrial education in 1862, and the States acted in accordance with it when they appropriated that grant, — Connecticut to Yale, New Hampshire to Dartmouth, Vermont to the Vermont University, New Jersey to Rutgers, Massachusetts to the State Agricultural College and Institute of Technology, Rhode Island to Brown University.

In view, then, of the facts and arguments which have now been presented, I sum up all in these two following statements: —

First. In the older States the only chance for the creation of real universities lies in the concentration of public and private aid upon a few of the strongest foundations, — developing them into universities worthy of the name, and leaving the weaker institutions to become intermediate colleges.

Second. In the Western and Southern States, the only chance lies in the establishment and maintenance, by public grants, of State institutions for advanced instruction, forming part of the general educational system, thoroughly equipped and free from sectarian control.

THE DISCUSSION.

The Rev. Dr. McCosh, of Princeton College, discussed the merits of the paper read, and disputed strongly the position taken by Professor White. He said: —

I am very much obliged to the Association for inviting me to take part in the discussions, and as I have only ten minutes to go over the ground it is

best for me to begin at once. I agree, so far as endowments are concerned, with the principle laid down by Dr. Chalmers, and that was subsequently so ably advocated by Mr. Mill, that as a general rule whatever can be executed by private enterprise and on the principle of supply and demand may best be left to its natural channel, — may best be left to private enterprise and to the principle of supply and demand. But then there are cases, and these not a few, in which the end cannot be accomplished by the ordinary principles of political economy, when, as I think, the State ought to interfere. It ought to do so in regard to elementary education, because there will be found in every community a considerable body of people not favorable to education, and who will not educate their children, and it is clearly the duty as there are criminals in all communities, that all people should be able to read the laws and the great principles of morality and government, and therefore I hold that every State should provide elementary education for the people, and under certain circumstances it should make provision for higher education, certainly in the earlier stages of society. I commend in the highest degree what was done for such colleges as Harvard and Yale in the colonial days, in the early days of our country; and I am inclined to think in many of the Western States it may be extremely proper for the State Government and even for the National Government to aid them; but it becomes a very difficult question in regard to the Eastern and the Middle States. I regard all things as lawful in the way of giving money for the purpose of promoting education, but I do not reckon all things expedient. We have now three hundred colleges or upward; we cannot endow the whole of them; by what process are we to select from among them? It is an exceedingly difficult question. There are, say five, ten, twenty colleges. Which of them are you to choose? Who is to choose them? It will not go necessarily to the highest college, — it will go to that one which has the best lobbying agents and the most political friends either in the State or General Government. What, then, are we to do? We have had immense sums of money given by private liberality, a larger amount than has been given by the whole of Germany. Are we to set aside this? How are we to select? Shall it be a certain number of favored colleges, and put these above the others? This I believe: taking things as they are in this country, it is best to let them go along as they are. I don't go along with the language about sectarian colleges. Is Yale College sectarian? I say it is worthy to be placed alongside of any college in the Old World or the New — (applause), — and I say that after having visited all the colleges of England and Scotland, and most of those of Ireland. There is talk about its being founded on dogma. What dogma is it founded on? When these men teach Latin or Greek I defy you to know whether they are Presbyterians or Baptists. There is nothing narrow or sectional in it; the right of conscience is certainly preserved, and there is no interference whatever with the religious convictions of any student. Would Professor White have a college a mixture of Protestantism and Popery, and partly Christian and partly Atheistic? Now, sir, we have these colleges, and let them go on; let us call forth the liberality of the people, and I believe you will get that liberality. I was told when I came to Princeton to go down to the State of New Jersey and get aid. I said, "I am much obliged to you,

but I would rather prefer to throw myself upon the people." I might have got $10,000 from the Legislature. I went to the people and got $1,100,000. Instead of lobbying for months together at the Capitol, with professors leaving their institutions, going up to live at hotels, as some have done (they left no pupils behind them though) — (laughter) — till I believe the whole Legislature was disgusted with them, — I say let us cast ourselves upon the public and the fittest of us will survive. It is a curious thing that a foreigner should be obliged to defend your American colleges; but I am able to compare them with the colleges of the Old World, and I believe they will compare favorably with the best of them. Take Oxford and Cambridge; they are colleges in an old and wealthy country, and they don't educate many of the people of the country, but I am prepared to say that the average body of students coming out of the ordinary American colleges is quite equal in scholarship to the average students that issue either from Oxford or Cambridge. (Applause.) I have lived within the walls of these colleges, and I know perfectly that there is a large body of young men coming out from these colleges that are inferior, I say it deliberately, to the men that are coming out from these colleges in the Western States. (Applause.) I know that we are deficient, and there should be a higher standard set, and I hope that there will be, for there is one point in which the German colleges are superior to ours: they educate a small body of men who devote themselves to literature and science more thoroughly than they do in this country. The colleges of the Old World educate a select few and take them higher, and that is just what I am trying to do at Princeton with my $1,100,000. Let us go on just as we are doing. Mr. White referred to Princeton when he spoke of a college having an observatory without a glass. I would assure Mr. White that it has an astronomer worth both observatory and glass together, and the gentleman who had given the observatory promised, when his means should afford it, to supply a glass also. It has been said that I am opposed to agricultural colleges. I am not their enemy. I am the son of a farmer and in favor of every development in agriculture, but I don't believe that to give money to agricultural colleges will tend to promote farming, and I believe that can be left to the State. In the old country these agricultural schools do not promote farming, and if I had a young man that I wanted to train as a farmer I would not send him to an agricultural school. I would send him to a college, to a school of science, and let him learn there all the branches of science, and then send him out to the farm or the workshop, and he would do far better than if trained in an agricultural school. But leave all this to the States and to private liberality. The education of the mind should be the grand aim of all universities, and the development of the arts will soon follow in its train.

Dr. Tulloch, President of a College at the University of St. Andrew's, Scotland, said it was a traditionary feeling in Great Britain that the State should help the institutions of learning. Recently statesmen, and notably Mr. Robert Lowe, had strongly opposed this principle, arguing that the State should look out for the lower educa-

tion and leave the higher to take care of itself. But that principle had little support among educated men. He had no knowledge of American colleges sufficient to warrant him in giving an opinion as to the qualifications of graduates from them, but he had information that there was a state of disorganization among American colleges. There were twenty-two colleges, he was informed, in the State of New York, and it was impossible for one half of them to be effective. A large number of colleges could not do even ineffectively what one good college would do perfectly. He would encourage the highest learning, but there should be one central academic influence. There were four universities in Scotland, and he believed they were too many. He was connected with one of them, an institution which had some antiquity, since it dated back as far as 1411, and although it was the smallest, it was the oldest. England was only a limited country, while America was an unlimited country. The public schools of this country were, in his opinion, good, well-ordered, and systematic. He did not see any reason why the nation should not bring up its youth to that advanced system of education which should make them examples to the civilized world in the conduct of their public duties instead of being a disgrace. They should carry into their public offices the highest ideas, working not for themselves or their party, but for the world. To accomplish this is something worth aiming at. Anything that the State or National Legislatures could do to procure this end was worth the trial. Private liberality is the growth of American life, and is a spirit of which America may well be proud. Every State, however, should have its University as a central power, for without academic control such advanced education can hardly be arrived at; but how such State Universities are to be founded without State aid he was at a loss to determine.

PRESIDENT WHITE'S ANSWER TO PRESIDENT MCCOSH.

[The following reply to Dr. McCosh is based upon notes carefully taken when his remarks were made. It may be that Dr. McCosh's comparison of American with foreign Universities has been modified in the report for publication; but as Mr. White has not seen that revision he has replied to the original statement.]

Dr. McCosh first objects to the term "sectarian college," and asks what I mean by it. I can easily answer him. A sectarian college in a college controlled by any single sect, or combination of sects. Sometimes this control is exercised by giving the favored sect a majority of trustees or professors, sometimes by requiring the president to be a clergyman of a peculiar sect, sometimes by organizing the controlling body at the beginning in the interest of the sect and then keeping it a close corporation. Unfortunately, the answer to the learned doctor's question is written over the whole history of American

education; and in letters very big and black. From the days when Henry Dunster, the first president of Harvard College, a devoted scholar and earnest man, was driven from his seat with ignominy and cruelty, because he had, as Cotton Mather declared him, "fallen into the briars of anti-pedo-baptism," the sectarian spirit has been the worst foe of advanced education.

But if Dr. McCosh thinks examples of this sort too old, I will point him to some well known in our time. One of the most honored college presidents of New York was driven out of his professorship of natural philosophy in a New England college because he was an Episcopalian; one of the most honored college presidents of New England was driven away from a professorship of Greek in a New York college because he was a Unitarian; one of the most renowned college presidents in the Western States was excluded from a professorship in the State of New York because he was a Presbyterian; one of the main University presidencies in New England remained in these latter years vacant for a long time. Why? There were scholars, jurists, statesmen, in that Commonwealth who would have done honor to the position. Why were they not called? Simply because the statutes of the University required the presiding officer to be a Baptist. One of the most important colleges in the State of New York rejected one of the best modern chemists because he was not of the required sect; a noted college in a neighboring State rejected one of our most noted astronomers and mathematicians for the same reason. Nay, within a few years I have had personal knowlege, as a trustee of the college concerned, of the following case. The college had suffered long for want of a professor of rhetoric and English literature, upon a foundation already endowed; a man of the required sect was at last found, admirably fitted; this man was rejected. Why? Simply because he was not of a particular party in that particular sect.

Does President McCosh wish to know what an unsectarian university is? I point him to the character given by the State of New York to the university which I have the honor to serve. It contains the following clauses: "Persons of any religious sect, or of no religious sect, shall be equally eligible to all offices and appointment." And again, "No person shall be accepted or rejected as trustee, professor, or student, on account of any religious or political views which he may or may not entertain."

But Dr. McCosh praises Yale College, and asks whether I consider that a sectarian college. Let me say here to the doctor, that while I may be willing to sit at his feet to learn some other duties, I cannot acknowledge him as my instructor regarding my filial duty to my Alma Mater. Among all her sons, no one loves her or respects her more than I, and my love and respect for her grow with the years, because I see that she is nobly working out of the sectarian fetters which her early history threw about her. She has appointed several men to professorships without compelling them to submit to any tests of orthodoxy whatever. In her faculty may to-day be found men utterly at variance with the theology which she has been supposed to represent. She has never lost her presence of mind in view of Darwinism, nor has she ever allowed a scientific professorship to remain vacant for fear that she might find in her faculty a believer in evolution.

Dr. McCosh has expressed fear that trouble might arise from difference in belief among professors, and thinks some one religious body must be in con-

trol. To show how little he understands the problem as it has been wrought out in this country, I can point him to the University of Virginia, the University of Michigan, the Cornell University, the Industrial University of Illinois, the normal schools and National colleges in the various States, which have gone on perfectly easily and smoothly under the system I advocate, and with infinitely less of religious quarreling than has taken place in several colleges under the guidance of a particular sect.

Again, he objects to any dependence upon State and National aid, because he says their officers would be obliged to present their cases to the State Legislature and there would be "lobbying;" and he draws a picture of the wretchedness arising from university officers taking part in this business. But there is another picture far more wretched. It is the picture of college presidents and professors inflicting themselves *ad nauseam* upon the pulpits and parlors of their particular denomination "to present the claims" of their special sectarian college; the picture of college officials paying contemptible court at the tables of rich members of the sect to catch some drippings for their respective colleges; the picture of professors of colleges driven to watch for legacies at the hands of aged widows and spinsters. This is a picture infinitely more sad than that of the college officer as a citizen presenting the claims of advanced education to the Educational Committee of the Legislature, or to its various members, and enforcing upon them the duty that the State owes in the education of its citizens.

And finally, the doctor gained some applause, apparently from undergraduates collected in the hall where he spoke, by the assertion that American colleges and universities send out graduates as well prepared as do the great foreign universities. The doctor possibly mistakes me. I made no reference to the smaller Queen's colleges of Ireland. If he says that the scholarship of their students at graduation is lower than that in our American colleges, I shall take his word for it, and pity Ireland all the more. But if he meant that our American universities, any of them, graduate men on an equality, as regards scholarship, with the great universities of the Old World, I will not put assertion against assertion, though my experience among those universities as a student (I state it simply as a matter of fact) is greater than his own, but I will simply point to facts which utterly disprove his assertion. If his assertion be true, why is it that a stream of the foremost scholars of our foremost universities sets steadily toward the great universities of the Old World? Why do our best graduates of Harvard, Yale, Michigan, Princeton, Cornell, and Columbia, and all the rest, constantly go abroad to perfect themselves in these same studies? Why was it that the late presidents of Harvard and Yale, and their present presidents, both pursued their studies abroad after graduation at home? Why is it that almost every professor of note in our leading colleges, in every important department, has perfected his studies abroad after graduating at home? To provoke the applause of undergraduates, Dr. McCosh's assertion was good enough, and he appears to have learned early how to minister to the American appetite for praise; but as a statement soberly made before a body anxious to get at the truth of the matter, and to do something to help on advanced education in this country, it seems to be utterly unworthy.

CORNELL UNIVERSITY, *August*, 1874.

SOME CONCLUSIONS RELATIVE TO PUBLIC LIBRARIES.

A Paper by William W. Greenough, Esq., of the Boston Public Library Board. Read May 22, 1874.

In discoursing upon the very general subject of Public Libraries, it is proper at the outset to define the term, now applied in common to many descriptions of collections of books, either placed within reach of the whole community or of a part thereof, upon very different conditions. The term at the present time conveys no exact idea of the library designated, without some further description, indicating the motive of its formation and support, and the manner in which its books are used. The British Museum, and the National Library in Paris, are both public libraries, and so are the Liverpool and Manchester libraries; but these latter are mainly free lending libraries, while the former are reference or consulting libraries. The Astor Library in New York, the Congressional Library at Washington, and the Public Library of the city of Boston, are three public libraries whose functions are discharged in entirely different ways.

In undertaking, then, to present any general treatise upon the subject assigned me, it would be necessary to make such an analysis of all the different forms of public libraries already known, as should classify, separate, and group them according to their organization, support, and use, and then, for the immediate purpose, to select some one class or group more especially and particularly connected with social progress. The subject is too large to be treated in any smaller compass than a volume, and I therefore will prescribe to myself for present examination the forms of the public lending library principally developed in the United States, and endeavor to arrive at some conclusions relative to the educational and other work which has been performed by them, and to their appropriate relations to the body politic which is taxed for their support.

Before proceeding farther with the subject of this paper, it should be premised that one can hardly say anything novel on the subject of libraries, or lay down any new principles relative to their increase or development. One may simply note the events of the past, in connection with the great movement which has so largely increased, during the present century, the great libraries of Europe, and which has cre-

ated the more modern form of the popular library, both in Europe and the United States. The enormous production of printed matter which has kept pace with the years of this century, had its first result not only in spreading books more widely among private purchasers, but also in producing immediate accessions in large numbers to the old established collections. This fact is more especially observable during the past twenty-five years. Of few European libraries, before the year 1849, were there any reliable estimates of the number of volumes therein contained. Even at the present time, the figures given for the contents of some of the larger libraries are only approximate. From the best authorities upon the subject, I may venture to present to you some of the results in the period which I have named as denoting the progress of the ten principal libraries in Europe. In 1849 and 1874, there were upon the shelves of the

	1849. Volumes.	1874. Volumes.
National Library, Paris	824,000	2,000,000
British Museum	435,000	1,100,000
Imperial Library, St. Petersburg	451,532	1,100,000
Munich Library	600,000	800,000
Berlin, Royal Library	410,000	600,000
Vienna Library	313,000	600,000
Copenhagen Library	412,000	500,000
Bodleian Library	220,000	300,000
University of Cambridge Library	166,724	250,000
Advocates' Library, Edinburgh	148,000	300,000
Aggregate	3,980,256	7,550,000

In 1849, it was estimated that the whole number of books in the seven public libraries of Paris was 1,474,000, while, in the same year, all the libraries of the United States, other than private, were computed to contain 980,000 volumes, — being nearly 500,000 less than were to be found in Paris.

Another large accession to these figures since 1849, has been derived from the foundation of the various popular libraries in Europe, particularly in England and France, and the establishment of the same class of institutions in the United States. For our own country, the data given in the report of the Commissioner of Education for the year 1872, afford the most astonishing evidence of accumulation. His tables of libraries other than private, — State, territorial, town, city, court and law, school and college libraries, — present the enormous aggregate of 19,456,518 volumes; while at the same time it is claimed that the other libraries of the country possess the still larger number of 26,072,420 volumes. When either of these grand totals is compared with the estimate of 1849 (980,000), one is either tempted to question the accuracy

of both estimates, or is naturally astounded at the wonderful development of the country in this branch of culture.

It is nevertheless obvious that the large figures are really approximative. While in 1849, according to Mr. Edwards's tables, the provision of books publicly accessible for every 100 individuals was in Saxony 417 books, in Denmark 412, in Prussia 200, in France 129, and in Great Britain only 53, there are to-day, according to the figures given in the tables of the Commissioner of Education for the same number of population in the States and Territories of the United States accessible in a similar manner, about 50 volumes; in the State of Massachusetts 138, in New York 80, in Pennsylvania 86, in Ohio 50, in Illinois 36. If reliance is to be placed upon these figures, there is yet much to do in obtaining a sufficiency of books to meet those necessities of our people for which provision is supposed to be made in public libraries. But this number of volumes, as proportioned to our population, gives no idea of the convenience of access and the real extent of use.

It is hardly thirty years since the relations of libraries to popular education began to be recognized, and systematic arrangements were made, first in England and afterward in the United States, for the formation of free consulting and lending libraries. In England, these were developed at Manchester, Liverpool, Birmingham, Sheffield, Leeds, and other important centres of population. Under our system, differing somewhat from the English type, we have witnessed the formation of the Boston Public Library, and other town and city libraries in Massachusetts; of the Astor in New York, the Peabody Institute at Baltimore, and the more recent beginnings of large libraries in Cincinnati and Chicago.

Of the function and use of the large consulting and reference libraries of this country, I do not propose to speak, — but to ask your attention to the form of the library most closely connected with popular cultivation, — the Free Lending Library. This form of institution differs somewhat from others in the details of its organization and support, — owing its foundation either to private benevolence or to public endowment, or to a union of both; with funds for the annual purchase of books either derived from the income of invested donations, or from local taxation; and the annual expenses of administration being contributed mainly from town or city appropriation. The foundation and maintenance have the direct object of furnishing to the reading population of a district a collection of books suitable to its wants, either for reference at the library building, or for use at home. This constitutes the public library at the present period, as it has grown up to meet the requirements of the time, and to make itself felt as a daily living supplement to the intellectual progress of the community.

To indicate how this result has been obtained, in the single generation which has covered the careers of most of these institutions, it may be proper to indicate a few of the principles which experience has shown to be important in their beginning and continuance, as well as those needed to fit them for their highest and widest functions:

I. In the original foundation of the library, it is obviously desirable to obtain in proportion to its funds the largest number of books useful to the largest number of people. The catalogues of the collections now organized upon the lending system will readily give this information.

II. From an examination of the results obtained in England, France, and New England, is derived the conclusion that, with one third of the collection of books in fiction and juveniles, and the other two thirds in history, biography, science and art, travel, poetry and miscellaneous literature, the former portion will furnish seventy-five per cent. of the circulation. One observes further, that the larger the proportion of fiction and juveniles, the larger will be the average circulation of books among borrowers.

III. The more intimate the relations of the library to the expressed wants of the community, the more successful its administration will be. These wants must be ascertained through a system, to be made known to the borrowers, by which every proper book, consistent with the means of the institution, shall be purchased on request. In some of the larger libraries printed forms are furnished to the applicant, and the keeping of a daily record of such requests forms part of the regular library routine.

IV. The wants of different districts and communities, while essentially the same in the more important subjects and authors, differ much in the minor classes of literature of supposed popular interest.

V. The smaller the library, the more carefully should be exercised the trust of selection and purchase; but in proportion to the size of the collection, the more important does it become to systematically extend its ramifications into all branches of learning and science, and in this manner to purchase, so far as is practicable, the works necessary to the specialist as well as to the general student. To accomplish this end, the services of skilled bibliographers are no less requisite than is the assistance of the learned classes in the community. The lists furnished by specialists were of great importance in the formation of the Astor Library; and the Boston Public Library has attained most valuable collections in the sciences and arts through the intervention and assistance of the distinguished men in its community devoted to the advancement of knowledge. To build a great library, the sympathy and work of large numbers of learned men are indispensable. No librarian

or committee on books can be conversant with all the works essential to the proportional development of a library, intended to contain not only a very considerable number of the books of permanent value printed in the past, but also the new issues of importance, from the presses of Europe and of the United States, in all the varied branches of human learning.

VI. It is obvious that to know what books a library contains, and the subjects upon which they treat, a good catalogue is the first necessity. By this is meant no dry alphabetical list of authors and of the titles of books, but one constructed mainly upon the principle that, with its aid, a person seeking information upon some special topic of interest shall find the books needed for the purpose, if contained in the library, without knowing beforehand the names of the authors, or the titles of the books which convey the knowledge for which search is made. The popular as well as the scientific catalogue, whether printed in a volume or enrolled upon the card system, in order to furnish a proper account of the contents of a library, should comprise, arranged in one alphabet, authors, titles, subjects, cross-references, and tables of contents of the larger and more important general or miscellaneous collections. With the smaller public libraries, this key to its stores can be embraced in one volume, — but with the larger libraries of this description, embracing 25,000 or more volumes, the more convenient form of printed catalogue has thus far been found to be the compilation of class lists, containing divisions of subjects, such as History, Biography, Travel, Fiction, Poetry and the Drama, Science, the Useful Arts, — and arranging in one list the works of each class in the library, with the appropriate references. This system affords the additional advantage of enabling the institution to renew from time to time, as needed, these lists, without undergoing the expense of printing periodically a new catalogue of the whole collection.

VII. While admitting to the full the objections which readily suggested themselves at the outset of the great movement for the establishment of popular free libraries, — that "books are not learning," and that "learning is not wisdom," and that, as stated by the "Edinburgh Review" (November, 1820), "collections of books are not the complement but the supplement of wisdom," — it is now just to state that the expectations of the first projectors of these institutions have been more than justified. To whatever motive must be attributed the acquisition of a taste for reading, there now seems to be sufficient and substantial proof that this taste, when once formed, gradually and surely leads "up" and not "down;" that beginning with the most commonplace books on the most trivial subjects, the reader goes on extending his course, finding his appetite growing with what it has been

fed upon, until the working man or woman is led to the nutriment which will secure a larger and better mental growth. Few mortals possess such a natural endowment of genius as shall enable them to pass the limits of previous human discovery in invention, without a precise knowledge of the results and details already recorded in the newest treatises. In a great library, embracing within its extreme folds not only the mildest efforts of the novelist with "strictly moral principles," but the highest achievements of human wisdom and scholarship, it would seem that any mortal seeking entertainment, or learning, or wisdom from books might obtain his object. Any one who has observed carefully the masses of people who pour into the great free libraries of the English cities and of Boston, will not have failed to perceive the ardent desire manifested by all classes of borrowers to obtain the books of which they are in pursuit, and, if these should have been previously loaned, the patient waiting for some other book which shall satisfy their desires. No power of moral suasion can ever induce people to read what they do not wish to read. If they require fiction they will have it; if not afforded by the free lending library they will go elsewhere to obtain it, and possibly to collections not made with any special reference to the public morals. In libraries supported by the public funds, and for which each individual has been taxed either directly or indirectly, all classes, not vicious, are entitled to find the books fitted to their condition. Practically, it is seen that classes which are vicious, but not thieves or incapable of any trust, read books of good or fair moral principle, take good care of them, and return them safely, — with what improvement or tendency to a better life, no one can know; but any intellectual exercise, or even employment of time, not tending to the continuance of vice, must in such cases be an absolute good, and tend to beneficial results. But this remark only applies to the lowest order of intellects or morals reached by the free library. In appearance and conduct in public, the members of these classes are not separated from, or recognized by, the respectable and blameless men, women, and children, who frequent the reading and distributing halls. However debarred and socially ostracized, there is one place, not a church, where they can go, and behaving with the same decorum, sit upon the same seats, and be recognized as apparently members in good standing of the great society of letters, — as much so as the large majority of the regular frequenters whose appearance and character may be felt to be not entirely or forever beyond the reach of their own ability to attain. This presents one extreme of the picture. The other may be found in the workers, not only for their day and generation, but for the untold and unknown future, who are not only seeking to reach to the utmost limit of everything knowable in their selected vo-

cation, but are also striving to use the wisdom, knowledge, and progress of the ages as stepping-stones or pathways to further increase and development of principles and knowledge, and to add to culture and civilization by extending the breadth and depth of what is known for the advantage and advancement of future scholars and pioneers. The perfect library is the school after the school, — the college after the college, the great free literary institute of universal application and observance. No intellect too feeble to receive sustenance therefrom, and none so vigorous as not to require its help. For the intermediate class, composed of the great multitude of readers, the library affords entertainment, novelty, or instruction. Each finds the want supplied, and every motive to intelligent or intellectual progress receives sustenance and impulsion. It extends its helping hand to lead the whole community along the pathway of culture and civilization.

VIII. Economists differ as to the conditions which indicate a public necessity; but if the term is applicable to any form of charity or benevolence not devoted to the relief of physical suffering, or to the institutions which protect human property and life, it would seem as if the experience of this generation had crystallized this new organization into a form which society must hereafter recognize as an essential ingredient of any intelligently governed community. In cities enjoying a large use of the free lending library, it would be difficult to draw the line across the points where exceeding convenience terminates and absolute necessity begins. The limit of perfect freedom in use is the safety and proper treatment of the books placed broadcast in the hands of borrowers. This limit is within the reach of every community; it can impose its own laws for security to its property, according to the nature and character of its population. It can either trust to the sense of honor of every borrower, or it may require the guaranty of responsible citizens, or it may call for a pecuniary deposit to insure the prompt and safe return of its books to their shelves. One is now slow to believe that a free lending library is impossible in any large gathering of population in one vicinity.

To this test of practical results, derived directly from the books themselves, there should be added the influences which emanate from the institution as a centre of light and progress. To the care and supervision of the books must be appointed men of wide culture; no knowledge is too minute or too general not to find appropriate use in bibliothecal administration. Among the most useful functions of an accomplished librarian is, the assistance to be personally given to the seeker after knowledge, in the ready direction to the latest text-books and authorities, and in answering the innumerable questions covering the multiform phases of human curiosity or of scientific research. This

legitimate condition will naturally attract with increasing frequency and usefulness to the library, as to the recognized cyclopædia of past and present popular and scientific knowledge, all those who require help from books or brains.

It may appear that this statement of progress is too simple and apparently inconsequential; yet the detail is necessary to indicate what has been approximately accomplished. What are unquestionable truisms, nevertheless, mark in their appropriate places the steps which have been taken forward, with the reasons which encouraged the venture. Simplicity and natural arrangement lead to their logical results. The new condition of the library evolved itself gradually with continually widening aim, from its first inception, until it has attained its present growth and power.

In this connection, in order not only to understand the relations of the library to the community, however small the collection of books may be, but to comprehend the subjects upon which the larger number of people depend for amusement or progress, it becomes essentially important that the statistics of the uses of the library should be printed. One needs to know the classes of books of which the library is constituted, the number of each class, and the uses in proportion to the borrowers. Mere statistics are neglected very largely by libraries in their printed reports, especially in this country. The necessity of employing a force sufficient for all the purposes of the institution is not comprehended, — provision in most cases simply being made for the cataloguing and the delivery of the books. But in order to recognize the social facts, one must know what the library contributes to the conditions under which it is administered.

I regret to say that the classification of subjects which was originally established in the English free lending libraries, was too diffuse in generals and not sufficiently minute in particulars; so that when comparisons are instituted between the results of that system and our own, we fail to arrive at the details necessary for exact comparison. The classes of books in the Manchester Free Library are included under six heads with twenty-five subdivisions; the five principal divisions being respectively Theology and Philosophy; History and Biography; Politics and Commerce; Sciences and Arts; Literature and Polygraphy. Under the head of history is embraced also the large subject of the narratives of voyages and travels. Under the head of literature and polygraphy, are enumerated the subjects really in principal demand; — general treatises on literature and literary miscellanies, linguistics, poetry and prose fiction, oratory, epistolography, bibliography, polygraphy. In the Liverpool library the classes number fifteen. Among them are, history and biography; geography, voyages and travels; poetry and the drama;

novels and romances; heraldry, encyclopædias, gazetteers, dictionaries and other works of reference; and classical literature; a clearer and more exact arrangement. In the Bolton library, the subdivision is still further diminished to eleven heads, which is certainly an improvement on the previous classifications, and approaches more nearly the practical form used in the United States. In this library, history, biography, voyages and travels, novels and romances, poetry and the drama, form separate classes, which more clearly indicate the tastes and educational pursuits of the community in these respects, than is the case in the two older libraries. In the popular branch of the Boston Public Library, the classification adopted by the accomplished bibliographer, Professor Jewett, and which has been found sufficiently indicative of the uses of the library, comprises nine heads, which include in distinct divisions prose fiction, biography, travels and voyages, American history and politics, foreign history and politics, French, German, and Italian books The divisions of subjects embraced in the great reference as well as lending library in the Bates Hall, are arranged upon a system peculiar to this institution, and are more numerous, as enumerating distinctly the different ramifications of science, art, and literary knowledge.

It is obvious that in comparing the results of the use of the three great lending libraries of the world, Manchester, Liverpool, and Boston, or in examining the classification and numbers of books in circulation in Europe and America, one fails to arrive at the facts which are needed by every student of social progress in connection with the influences developed by the library, or as adapted to the character of the population to which its charity is ministered. Uniformity of detail should be entirely practicable in the statistics of libraries, and it is hoped that by joint agreement in Europe and this country, a classification may be adopted which shall yield all the facts needed, in a simple and practical form, and within the administrative capabilities of the smaller as well as the larger libraries. With the libraries that have had their classification established for years, it will be difficult, and perhaps impracticable to adopt a new system of arrangement; but in these cases, it is not impossible, while continuing their previous numerations, to subdivide in their statistics the most important and popular classes of books circulated; so that while the whole circulation of the particular heading shall be given, the numbers of each subject embraced in the aggregate shall also be stated. The free library is the barometer of the taste and culture of its readers, and the weight or lightness of their intellectual atmosphere makes its sure and incisive register in the statistics of its use. When in one great library, under one head, are included literature and literary miscellanies, poetry and prose fiction, oratory, epistolography, bibliography, and polygraphy, — while in

another they are found in almost as many separate divisions, how can any intelligent comparison be made of the uses of these libraries in their relations to their community, or of the educational purposes which they serve? In the continuous movement or development of this new necessity of modern civilization, it may naturally be expected that a common system may be agreed upon by representatives of the free lending libraries in this country and in Europe, which shall indicate to the student of social progress the extending results of each year's use or work.

In examining the position of a library, it must be remembered that however vast the collection of books in separate institutions, no institution may contain all the works which have been printed. The advantage of modern collections consists mainly in their practical value, — as embracing in proportion to their contents a larger number of books desired by the great number of readers. One cannot but smile when Professor Mommsen finds such a deficiency in a library of 600,000 volumes at Berlin that he is compelled to resort to the 800,000 volumes of Munich; but the printed statement does not tell us in what the deficiencies consist, nor to what end the expenditures for modern books have been devoted, nor what the system of growth of each library has been during the past twenty-five years. To any one familiar with the contents of the shelves of the large libraries of Europe, and cognizant of the masses of didactic and polemic theology, as well as of the forgotten and useless books of more than four centuries of printing, it is sufficiently obvious that the number of volumes does not indicate or even approximate to the real worth or value of a library. That collection of books is the most important and valuable which contributes the largest amount of knowledge and information needed to the progress of the century in science, art, and general civilization.

THE SOCIAL SCIENCE WORK OF THE YOUNG MEN'S CHRISTIAN ASSOCIATIONS.

Remarks made by Cephas Brainerd, Esq., of New York, on the Report of the Secretary of the American Social Science Association, May 22, 1874.

The phrase "Social Science" is familiar to all, but perhaps it fails to convey to most minds a definite idea. The opening address of your President (Mr. Curtis) contained a broad and interesting description of the objects contemplated, but no precise or formulated definition; nor have the able papers which have been read gone in this respect beyond that address. I have listened attentively throughout these extended but interesting and instructive conferences for a definition; offense will not be taken if I say it has not been given. But it is safe for any one who has witnessed, without taking an active part in your deliberations, to assume that the mission and purpose of this Association is one wholly of goodness. "I take Goodness in this sense," says Lord Bacon; "the affecting of the weal of men, which is that the Grecians call Philanthropia; and the word Humanity, as it is used, is a little too light to express it. Goodness I call the habit, and goodness of nature the inclination. This, of all virtues and dignities of mind, is the greatest, being of the character of the Deity; and without it man is a busy, mischievous, wretched thing, no better than a kind of vermin."

So, naturally enough, in proposing the adoption of the encouraging and comprehensive report which has just been read, a few remarks can be made in regard to a band of societies, to which a most kindly reference was made by the Secretary, — having a large constituency, and objects kindred to your own, but which they seek more especially to promote in individuals, by the efforts and influences of their individual members. The Social Science Association seeks by oral and printed discussion to contribute to human progress; it asks for a considerable audience to instruct. The Young Men's Christian Associations, while not turning away from the audience of many, aim largely to serve the same noble purpose by the operation of the individual mind upon other minds in the ordinary contacts of social life; and so they need well-taught members. Let it not be supposed that these Associations are, or claim to be, any other than orthodox societies, as this word is com-

monly understood, and remember that they seek the reformation of man in what their members believe to be the highest sense. They aim to have men changed from darkness to light, but they are none the less in sympathy with all just efforts to elevate men. Wherever the goodness described by Lord Bacon is exhibited, they are, to the extent of their powers, willing helpers. Surely, they are sufficiently catholic and cosmopolitan to render generous contributions in their way and place to a general purpose so grand and noble as your own. In the report, which has my concurrence, there are many points upon which I would like to address you, but my remarks will be confined to the Associations of which I have just spoken, for the purpose: (1) Of inviting your attention to the large body of young men they represent, as a field worthy of careful study and effort in the distribution of those influences and ideas by which you hope to lead our whole people in the way of a better and higher life; and, (2) To indicate some lines of teaching and service in which they are now useful, and in which especially you have their cordial sympathy and aid, or in which they may be your willing helpers.

I. These Societies furnish a large and apt class for your teachings. Here your discussions reach the active, the earnest, and the practical man. The young man who is testing plans and modes, who is seeking the best methods for elevating and improving those about him; who studies to "affect the weal of men," and while he makes the dissemination of the truth taught by Christ, as he believes it, his principal object, is yet anxious for the triumphant success of every effort in harmony with his great purpose to exalt and improve mankind. Beside a body of young men who are both workers and learners, there is yet another body composed of young men who are as yet but learners, and for the sake of whom, those who are teachers will welcome your lessons as a liberal addition to their material.

A few facts will show the magnitude of the opportunity now brought to your notice.

The Associations are thickly scattered over the whole English-speaking part of the continent; they touch Charlottetown in the East, and San Francisco in the West; they number now, nine hundred and fifty-five; the membership is not less than one hundred thousand; the current expenses of two hundred and fifty-four is four hundred and twenty-two thousand, six hundred and thirty dollars; forty-seven own buildings valued at one million nine hundred and sixty-three thousand dollars; fifty-six others have building funds amounting to four hundred and twenty-nine thousand, six hundred and sixty-two dollars, an aggregate of two million four hundred and eighty-seven thousand, six hundred and sixty-two dollars ($2,487,662), being an increase within the

year of three hundred thousand, two hundred and sixty-eight dollars. Already seventy-eight persons employ their whole time as general secretaries in the work of individual Associations. Note now these obvious elements as serving further to indicate the importance of the field; the men are nearly all young, they are active, energetic, and earnest to acquire the "good which is communicative;" their number is increasing, their wealth is being steadily accumulated, a flexible but enduring corporate form is taken on. Nearly all, in addition to strictly religious services, have reading rooms, libraries, courses of instruction, and secular lectures. I have heard no paper read here which would not be a welcome help in their work of instruction; each, when printed, can find a fit place in their reading rooms, and appreciative readers. Here, then, is shown an attractive field for the operation of the enlarged philosophic views, and philanthropic teachings of this enlightened organization.

II. Some particulars may readily be suggested in which there now exists an especial harmony.

Confessedly there is the utmost need of a direct personal effort by philanthropic and large-hearted people for the education of convicts while in prison, and their care when discharged, to the end that they may be finally saved to society, with which they have been at war. Here these young men are earnestly at work. In some of the States, committees of the Associations impart all, or nearly all, the useful instruction which convicts receive. They are ready and cheerful visitors of those in prison, and they fail not in effort to secure employment for the unhappy convict, when the law, declared to be satisfied, releases its stern grasp upon his person. Happily the lives of many convicts testify to the faithfulness of these efforts, as well as to the probability, nay, the certainty, of permanent reform. Need it be said that the plans and counsels of those experienced in such efforts, as garnered in your reports and papers, would be most gladly received?

Work for individual prisoners by thoughtful men, young and old, and the frequent contact which such work renders necessary, with prison officials of all sorts, has not failed to suggest the imperative need of reform in the whole system of prison management. None see more clearly than our young men, that penal institutions, while rendered places of just and adequate punishment, must also be made schools for the reformation of men. The convicts are almost wholly young men, the great proportion under thirty years; they are not sentenced for life, but must shortly return to society. Are they to come out, in effect, its enemies? Young men banded together to help their fellows on in the way of right living, cannot be blind to the claims of this great cause

of the convict. They are not; they will help you to put in practical operation the plans here matured.

Proposed reform in some of the rules of international law, has evoked able discussion here. Can young men, loving mercy as well as justice, be indifferent to the changes you advocate? Is it not easy for them to understand, not only the impolicy, but the absolute injustice of subjecting private property — not contraband of war, or designed for blockaded ports — to capture and condemnation? Will they be blind to the considerations which condemn that system of semi-piracy which is legalized by letters of marque and reprisal? Will they not gladly contribute to the increase of that sentiment, growing in all civilized lands, which demands the adoption of the principle of arbitration in the settlement of international controversies?

Taking their part in the politics of the day, they are not ignorant of corruptions which threaten to undermine government, nor of the peculation and robbery which defile some of our public offices and bureaus, and even creep into legislatures. The eyes of these young men are open to the evils of this character, which have received attention during your sittings, and they are with you to insist that conscience shall have a hearing, good morals a voice, and sound culture a place in public affairs. They are ready to insist, and will insist, that public servants and those who seek to be such, shall recognize sound culture as necessary, and conscience and good morals as potential forces, which cannot be safely disregarded.

Points of accord multiply as the objects of the societies are considered together, but time does not permit me even to indicate them.

The field is very wide, the need great; let those who love their kind, and seek to elevate them, disregard minor differences, and work heartily together to "affect the weal of men."

Note. — A paper by Dr. Hewitt of Minnesota, concerning the Board of Health for that State, being received too late for insertion in its proper place (page 250), will be found in the second part of this Number, the *Social Science Record.*

THE SOCIAL SCIENCE RECORD.

In the Sixth number of our Journal, and in the first part of this number, we have printed the papers and discussions at New York, last May, with such other matter as seemed appropriate in that connection. We have not printed all the papers read at the General Meeting because we could not obtain them in season for this number, — neither President Gilman's "California," nor Dr. Smith's paper on "Boards of Health," having been written out in such form as their authors thought desirable for publication. In place of these we have inserted addresses made at a previous meeting, or information bearing upon the topics presented, and deemed worthy of preservation in the same connection.

In the remainder of this number, and in future numbers, we shall present under the title above given of "Social Science Record," a collection of reports, records of events, short papers and general intelligence of various kinds, such as may be useful to the members of the Association and all readers of the Journal. Toward the end of the "Record" will be found announcements of meetings of the Association and of other associations, in this country or abroad, which are kindred with our own, — particularly of the Annual Meeting of the American Association in Boston, on the 14th of October, 1874, and of the Annual Social Science Congress of Great Britain to be held at Glasgow, — from the 30th of September to the 7th of October.

PROCEEDINGS OF THE AMERICAN SOCIAL SCIENCE ASSOCIATION, 1872–3.

The Fifth number of the Journal having been printed before the Annual Meeting, in 1873, could not contain an account thereof, and it was deemed best to devote the Sixth number to the New York proceedings and papers. In order to preserve a record of what was done in the year 1872–3, we here print the brief report made, both of the Annual Meeting itself and of the general work of the year, which was not one of great activity on the part of the Association. What was done, however, has led to important results.

THE ANNUAL MEETING OF 1873.

The Eighth Annual Meeting of the American Social Science Association was held at eleven o'clock, A. M., in the hall of the Lowell Institute, Boston, October 8, 1873, Hon. Josiah Quincy, one of the Vice-Presidents, in the chair. The Treasurer presented his annual account, showing receipts to the amount of $1,718.64, disbursements to the amount of $1,781.99, and liabilities then estimated at $353.35.

Reports were read from the Departments of Education, Health, and Jurisprudence, and also a longer report by Mr. J. M. Barnard, of his doings as Acting Secretary during the years 1872–3, all of which were accepted and ordered to be placed on file. Subsequently, they were ordered by the Executive Committee to be printed.

The following officers were elected for the ensuing year, 1873–4:

President.

GEORGE W. CURTIS, New York.

Vice-Presidents.

JOSIAH QUINCY, Boston.
SAMUEL ELIOT, Boston.
C. R. AGNEW, New York.
H. C. LEA, Philadelphia.
T. D. WOOLSEY, New Haven.
J. W. HOYT, Madison, Wis.
GEORGE DAVIDSON, San Francisco, Cal.
D. C. GILMAN, Oakland, Cal.
WILLIAM T. HARRIS, St. Louis, Mo.

Secretary.

F. B. SANBORN, Concord, Mass.

Treasurer.

J. S. BLATCHFORD, Boston, Mass.

Directors.

LOUIS AGASSIZ,[1]	Cambridge.	EDWARD C. GUILD, Waltham.	
EMORY WASHBURN,		Mrs. JOHN E. LODGE,	Boston.
CHARLES W. ELIOT,		Mrs. S. PARKMAN,	
Prof. BENJAMIN PIERCE,		Mrs. CAROLINE H. DALL,	
S. G. HOWE,	Boston.	Mrs. HENRY WHITMAN,	
T. C. AMORY,		Miss A. W. MAY,	
C. C. PERKINS,		Miss ALICE S. HOOPER,	
J. M. BARNARD,		Miss LUCRETIA CROCKER,	
ROGER WOLCOTT,			

[1] Died December 14, 1873. Other changes and additions in consequence of resignations, vacancies, etc., have been made by the Executive Committee since the annual meeting, so that the list now stands as printed in Journal No. VI.

The report of Mr. BARNARD, one of the Directors and Acting Secretary for the year 1872–3, as read at the Annual Meeting, was as follows:

ACTING SECRETARY'S REPORT.

To the Members of the American Social Science Association.

LADIES AND GENTLEMEN: At the adjourned annual meeting of this Association, held November 9, 1872, it was unanimously decided that its active work should be continued. It was therefore deemed best that the central office (5 Pemberton Square) should be kept open, and the lease was renewed by the Treasurer. As all the other officers were too busy to give much attention to office work, I volunteered to do so, hoping that a Secretary would soon be elected. At a meeting of the Executive Committee held February 22, 1874, Messrs. Sanborn, Blatchford, and myself, were elected a committee in charge of the office; but inasmuch as my two associates were unable to give much time to it, I have practically been in charge of the office during the year. The office has been open from ten to two o'clock in the morning every week day, and very often during the afternoon. Aided by a clerk, I have been able to continue the work usually done therein, though by no means satisfying my ideal of what it should be. I will briefly report what has been done.

In the first place, an attempt was made to renew and extend our correspondence with the members and other parties interested in Social Science, in the United States and in Europe. This has been continued through the year, and with good results. It has proved to us that there is a more general interest in the subject in this country than we had supposed. It has been gratifying to learn from it that the past work of the Association has been so generally approved; that we have succeeded in establishing a good character. It makes us acquainted with important social movements in various parts of this country and abroad, and it has often enabled us to contribute information to the parties engaged in those movements. I will give some examples. Our members in Albany informed us of the discussion in their legislature of the Usury Laws, and we were able to supply them with some of the papers brought out by the discussion of the same subject in this State several years since. One of our correspondents in New York is actively engaged in the attempt to improve the Police Courts, the Judiciary generally, and the municipal government of that city. By the kindness of the Mayor of our city, of Mr. George S. Hale, Judge Wells, Mr. J. B. Thayer, and others, we have been able to give specific answers to the questions on these subjects transmitted to our office. In return he has furnished us with a good deal of information which we have forwarded to various parts of the United States, where these questions are exciting so much attention.

From George W. Hastings, Esq., President of the Council of the British Social Science Association, and who came from New York to Boston last November for the express purpose of showing his interest in the Association, we have received a good deal of information relative to sanitary and educational matters in England; and we have done something in return. To show that this interchange of information does sometimes bear fruit, I will read an extract from his letter dated Malvern, England, May 8, 1873.

"As chairman of the School Board of Worcester, the capital of our county, I have persuaded the Board to adopt the plan I saw so successfully at work in your city, of an agent to look after the children, see that they are at school, and report the absentees. This morning we have made the appointment of an excellent man, long known among the poorer classes, to the office of School Board Agent, and have instructed him to prepare at once a census of the children of the city in an educational point of view."

Another correspondent in London, Leonard Rowe Valpy, Esq., has sent us a good deal of information as to what they are doing in England for Education in Art, and also in the Principles of Jurisprudence; in both of which he has a great interest. In his last letter he inclosed a carefully prepared sketch of the progress made in the last mentioned subject in England since John Austin commenced his lectures in 1826.

I have, I believe, given a sufficient number of examples to explain what has been attempted in the office in the way of correspondence. I will merely add that the Association at present has the addresses, which it can use, of experts in New Haven, Albany, New York, Philadelphia, Baltimore, Washington, Cincinnati, Chicago, St. Louis, Iowa City (Iowa), Madison (Wisconsin), San Francisco, and other smaller places in the United States; in Rome, Florence, Venice, Geneva, Berlin, Dresden, Paris, and London. I cannot help thinking that we have herein a broad basis for future extensive coöperation and common good.

During the year a General Meeting was held in this city, the preparation and management of which devolved upon the central office. We endeavored to secure papers from competent authorities upon those subjects in which the public seemed just then to be interested, such as the "Management of Cities," the "Higher Education of Women," the "Currency," etc. The lateness of the date of the decision to hold the meeting, prevented us from giving two papers of great importance, one upon the "Scientific Problems which Underlie Sanitary Reform," the other upon the "Necessity of Increased Means for Instruction in the Science of Jurisprudence." The papers read at this meeting have been printed, forming, with some other matter, Journal No. V.

The limited resources of the treasury prevented us from printing anything else; but "Remarks on Education," read by Professor Agassiz before our Department of Education, have been printed in the "Massachusetts Teacher," and remarks by Dr. T. Sterry Hunt, made at a meeting of the Department of Public Health, have appeared in "Old and New." The Association in Philadelphia, which is pleased to consider itself as a branch of ours, and which is a very active one, has supplied us with its publications for distribution. There is a constant sale of our previous publications. In the absence of our own matter, I have endeavored to keep informed of the appearance of excellent publications upon questions coming under the head of "Social Science," to secure a supply of them, and to forward them to parties who I had reason to believe would be interested in and use them. In this way we have distributed copies of the translation of Professor Virchow's Report on the "Injurious Influences of the Schools upon the Health of the Scholars;" D. B. Eaton's paper on "Sanitary Legislation in England;" the "Fourth Annual Report of the Board of Health of Massachusetts;" the "Reports of the Dispensaries

for Skin Diseases, and for Nervous Diseases, in Boston;" the "Phi Beta Kappa Address" of Hon. C. F. Adams; the "Fourth of July Address" by Mr. Ware; the "Examination Papers for Women at Harvard University;" the Massachusetts State Reports on Charities, Labor, Prisons, and Schools; Mr. D. B. Eaton's paper on the "Police Courts of New York," and Miss Carpenter's little book on the "Crofton Prison System." We have reason to believe that the seed thus sown has fallen on good ground, and that we have done something thereby to add to the information of the people, and to stimulate both thought and action upon these all-important subjects.

At my suggestion, the Department of Health requested Professor Wolcott Gibbs to represent us at the Vienna Exposition, whither he was going, and to report to us upon anything which he might see there worthy of public notice. The British Social Science Association holds a general meeting this year at Norwich, England, from the 1st to the 8th of the present month. In connection with the meeting there will be an exhibition of Sanitary, Educational, and Domestic Appliances. A desire was expressed by the General Secretary that our Association should be represented there. Fortunately, one of our Directors, Hamilton A. Hill, Esq., a gentleman of large and exact knowledge as to the resources of this country, is now residing in London. I therefore requested him to represent us at Norwich, and he consented to do so. In a letter received yesterday, he writes: "I have arranged with the Secretary to be present at the meeting, and I have promised to prepare a paper to be read before the Department of Trade and Economy. I have also received an invitation for Mrs. Hill and myself to spend the week in a hospitable private family in Norwich." Mr. Hill hopes to induce Mr. E. L. Pierce, another of our Directors, to accompany him to the Congress.

Such is, I believe, a correct report of what has been done in our office over and above the works of the several Departments, during the past year. The care of that office fell upon me simply because there was no one else to take it. I regret that the limited time which I could give to it, and my want of ability prevents me from making a better account of my stewardship. I am happy to know that we have reason to hope that I shall be succeeded by a regularly appointed Secretary, who will bring great intelligence and experience to the work.

(Signed) JAMES M. BARNARD.

BOSTON, *October* 8, 1873.

A vote of thanks to Mr. Barnard, for his voluntary and valuable labors as Acting Secretary was moved and passed. The reports of Dr. LINCOLN, and of JAMES B. THAYER, Esq., Secretaries of the Departments of Health and of Jurisprudence, were then read as follows, after which the meeting adjourned.[1]

[1] The Report of the Department of Education, being brief and general, is here omitted. No report was received from the Department of Finance.

DR. LINCOLN'S REPORT.

The Secretary of the Department of Health begs leave to report as follows: —

At the close of the last calendar year (1872), the Department Committee consisted of five members; but owing to the absence of some, and the want of leisure on the part of others, no meeting had been held for nearly two years. At that time, therefore, it was thought desirable to reorganize the Department, and to lay fresh work before it, following the general plan which was then on foot for enlarging the entire activity of the Association. This plan has been carried out as follows: —

1. The number of members has been enlarged to eighteen, besides three associate members resident in distant places, and two European correspondents.

2. Commencing on the 17th of January, 1873, six regular business meetings have been held. At these meetings, discussions have been held upon a considerable variety of topics of a sanitary nature, among which may be mentioned, "The Ventilation of Prisons in this Commonwealth," "Reform of the Quarantine Laws," and "Statistics of Vaccination."

3. The Department has also caused to be prepared and read at the general meeting last spring, papers upon "Animal Vaccination," by Dr. Frank P. Foster, of New York, and on the "Laws Regulating the Education of Apothecaries and the Sale of Drugs," by Professor Markoe.

4. In acceptance of the very kind offer of Reverend E. E. Hale, the Department has caused to be published in "Old and New" a report of Dr. Hunt's lecture upon "Air and Ventilation."

5. Finally, the Secretary would add, as a matter not included under any head of business, that the Department stands upon the most friendly terms with the Massachusetts State Board of Health; that the two bodies, in pursuing somewhat similar objects, are not in the least danger of trenching upon one another's provinces, and that both are convinced that there is an abundance of work for each to do. Respectfully submitted.

D. F. Lincoln, *Secretary Department.*

Boston, *October* 8, 1873.

MR. THAYER'S REPORT.

To the Secretary of the Executive Committee of the Social Science Association.

The undersigned, Secretary of the Department of Jurisprudence, begs leave to report that there have been several meetings of this Department during the year. The experience of its members has led them to think that they would hardly be of service to the Association in any other way than by answering such questions or attending to such business as might be referred to them by the Executive Committee or other members. Three such questions have been referred to this Department and have been under consideration. Reports have been made to the parties referring them in two cases; the third question is still in the hands of a sub-committee.

In reference to this last named question, relating to the "Law of Settlement," it is proper to say that upon its reception it was immediately referred

by this Department to a sub-committee, but that owing to a miscarriage of the letter transmitting the question, it has but lately reached the sub-committee. An early report is hoped for.[1] J. B. THAYER.

BOSTON, *October* 4, 1873.

THE LATE PROFESSOR AGASSIZ.

The American Social Science Association has sustained a great loss in the death of Prof. AGASSIZ, who had been for a year before his death one of the most efficient members of its Executive Committee. At the next monthly meeting (Dec. 27, 1873) after his death, the Committee, upon the motion of Prof. WASHBURN, passed resolutions in his honor, and directed the President and Secretary to communicate them to the family of the deceased. This was done by the following letter, to which the resolutions are appended: —

OFFICE OF THE AMERICAN SOCIAL SCIENCE ASSOCIATION,
5 PEMBERTON SQUARE, *Boston*, *December* 30, 1873.

MRS. LOUIS AGASSIZ.

MADAM: — While cordially uniting with other literary and scientific Associations throughout the world, in testifying their appreciation of the eminent and estimable qualities, of heart and intellect, of their late associate PROFESSOR AGASSIZ, and their profound sorrow at the loss which Science and Humanity have sustained in his lamented death, this Association desire to offer their personal tribute of respect to his memory; recalling with melancholy satisfaction the interest he manifested while living, in its prosperity, and the willing aid which he ever lent to its advancement. They would, moreover, record as a cause of grateful recollection and hopeful encouragement, the assurance they have received that up to the hour of his being stricken down by disease, he retained this interest and freely expressed it, amidst the numerous and weighty cares and duties which were pressing upon him.

They beg you, therefore, to accept the accompanying resolutions, as the last heartfelt offering of friends, who have thereby desired to express to you and to the members of the family of Mr. Agassiz, the feelings of personal regard which they will ever retain for one whom they loved and honored.

With sentiments of unfeigned respect, the American Social Science Association by their undersigned officers, are

Very truly your friends and obedient servants.

GEORGE WILLIAM CURTIS, *President.*
F. B. SANBORN, *Secretary.*

THE RESOLUTIONS.

Resolved, That this Association, in common with the people of this country, and with the people of every land, has, in the death of Louis Agassiz, met an irreparable loss.

Resolved, That we desire to place on our records a declaration of our appreciation of the affluent learning, wise counsel, elevated thought, and unfailing earnestness, which he brought to the service of this Association.

[1] This Report was completed early in 1874, and is printed in the Journal No. VI. pp. 64–72.

OCEAN LANES.

In the last number of the Journal (pp. 17–20), we printed some communications from Mr. R. B. Forbes, chairman of the committee on "Ocean Lanes," appointed at the New York meeting, in regard to that subject. We now continue the discussion by presenting later communications from Mr. Forbes and from Commodore Wyman, whose practical statements concerning the proposed lanes will be read with much interest. At the Annual Meeting of the Association in October, a preliminary report from this committee may be expected, along with some communications from Professor Pierce, respecting the discussion of the same topic in Europe, where he has been presenting it for public consideration.

SECOND LETTER OF MR. FORBES.

Milton, *August* 2, 1874.

Gentlemen: Since my communications of July, I have been in correspondence with Commodore R. H. Wyman, Superintendent of the Hydrographic Office at Washington, and have received from him a chart of the Atlantic on which are marked Maury's Lanes, the German monthly routes, and the routes recommended by the Hydrographic Bureau. Herewith I give you his letter and a copy of my reply. The letter (accompanying the chart, which I also beg leave to hand you herewith) gives many figures and good reasons for his courses. It appears to be of very small consequence for which route — Maury's or Wyman's — we decide; provided we agree as to discouraging the monthly German routes, which theoretically, and perhaps really shorten the distance or time, but are too complicated to be strictly adhered to by navigators.

I am very truly yours,

R. B. Forbes.

To George W. Blunt, Charles H. Marshall, Francis R. Cope, etc., Committee on Ocean Lanes.

COMMODORE WYMAN'S LETTER.

Hydrographic Office,
Washington, *July* 29, 1874.

Captain R. B. Forbes, *Milton, Mass.*, —

Dear Sir: Your letter of the 17th inst. has remained thus long unanswered from the necessity of my giving its subject — Steamer Routes across the Atlantic Ocean — a more mature consideration than that which I have bestowed upon it heretofore. Since this subject was first discussed by Lieutenant Maury, in 1855, it has only been revived spasmodically, as accidents have occurred; every line of steamers having continued to follow such routes as the directors of the line deemed the best; or else each steamer has been navigated in

accordance with the views and experience of her master, with this one object in view, — to make the passage in the least number of days.

Steamer routes for the large and constantly increasing number of steam vessels crossing the Atlantic would tend, perhaps, to render collisions less frequent ; the adopted routes to the Eastward and to the Westward being distinctly laid down and understood, and, it being obligatory, as far as possible, for steamers to follow such routes, sailing vessels would avoid them as much as possible, or, when compelled to cross them, would do so with the greatest caution, knowing that the locality was a dangerous one.

The route for a steamer is the shortest distance that can be made between two points, provided that, on such route, the prevailing winds and the currents are not sufficiently adverse to obstruct or be a hindrance to navigation.

Any routes decided upon as steamer routes must necessarily appropriate only a sufficient breadth of ocean to admit of the navigator keeping readily within the belts, under all ordinary circumstances.

If practicable, the routes should pass over such uprising of the bottom as to enable the navigator, when in the vicinity of land or shoals, to approximate his position with the lead.

Complying with your request, I give you the following, which in my judgment are as good steamer routes between Sandy Hook and Liverpool or the English Channel, and *vice versa*, as can be laid down, — each route extending over a belt thirty miles (30′) in width; the points given being those of the axis of each belt.

The Northern Route, or that from Europe to America, proposed by this office, has for its axis the arc of a great circle from Lat. 51° 05′ N. and Long. 10° W. to Lat. 46° 15′ N. and Long. 53° W. and may therefore be called a "great circle route from Europe to America." It gives Cape Race a berth of from ten to forty miles, as the navigator may prefer. On it the current encountered is trifling, until about the meridian of 50° W., when it sets to the southward and westward, and soundings can be obtained on the northern part of the Great Bank and on Green Bank.

The Southern Route is not a great circle route, being laid down with reference to other conditions, viz. : A proper divergence from the Northern track, without a material increase of distance, the avoidance of the Grand Bank, and a maximum benefit from the current of the Gulf Stream.

The computed courses and distances by these two routes (their axes) are as follows : —

No.	Track to America. Latitude.	Longitude.	Course.	Distance.	Track to Europe. Latitude.	Longitude.	Course.	Distance.
	° ′	° ′	° ′		° ′	° ′	° ′	
1	51 05 N.	10 00 W.			40 29 N.	74 00 W.		
2	51 23 N.	15 00 W.	N. 84 29 W.	189	39 50 N.	70 00 W.	S. 78 00 E.	188
3	51 27 N.	20 00 W.	N. 88 51 W.	187	39 57 N.	67 35 W.	N. 86 24 E.	111
4	51 19 N.	25 00 W.	S. 87 31 W.	187	41 25 N.	60 00 W.	N. 75 39 E.	355
5	50 58 N.	30 00 W.	S. 83 43 W.	189	42 50 N.	50 00 W.	N. 79 11 E.	453
6	50 23 N.	35 00 W.	S 79 25 W.	193	43 45 N.	45 00 W.	N. 75 52 E.	225
7	49 35 N.	40 00 W.	S. 76 09 W.	199	45 15 N.	40 00 W.	N. 67 13 E.	232
8	48 31 N.	45 00 W.	S. 71 55 W.	207	46 55 N.	35 00 W.	N. 64 30 E.	231
9	47 11 N.	50 00 W.	S. 68 22 W.	217	48 15 N.	30 00 W.	N. 68 26 E.	218
10	46 15 N.	53 00 W.	S. 65 30 W.	136	49 12 N.	25 00 W.	N. 73 56 E.	206
11	43 00 N.	59 00 W.	S. 52 02 W.	325	50 07 N.	20 00 W.	N. 74 11 E.	202
12	40 30 N.	68 00 W.	S. 69 35 W.	430	50 38 N.	15 00 W.	N. 80. 48 E.	194
13	40 29 N.	74 00 W.	N. 89 47 W.	274	51 05 N.	10 00 W.	N. 81 53 E.	191
	From Lat. 51° 05′ N. and Long. 10° W. to Sandy Hook = 2,733 miles.				From Sandy Hook to Lat. 51° 05′ N. and Long. 10° W. = 2,806 miles.			

From Lat. 51° 05′ N. Long 10° W. to Cape Clear bearing N. is, ... 18
" " " " Scilly Isles is, ... 156
" " " " Liverpool is, ... 312

Distances Compared.	H. O. Tracks.	Maury Lanes.	German Routes.
	Miles.	Miles.	Miles.
From Sandy Hook to Cape Clear	2,824	2,829	.....
" Cape Clear to Sandy Hook	2,751	2,723	.....
" Scilly Isles to Sandy Hook	2,889	2,882	2,999
" Sandy Hook to Scilly Isles	2,962	2,980	3,014
" Sandy Hook to Liverpool	3,118	.....	.....
" Liverpool to Sandy Hook	3,045	3,038	.....

The shortest possible distance[1] between Sandy Hook and Liverpool by steamer is, according to,

	Hyd. Office. Miles.	Maury. Miles.
	2,992	3,009
The average distance actually accomplished, do. .	—	3,069

EXPLANATION OF THE STEAMER ROUTES ON THE ACCOMPANYING CHART.

The "routes" in yellow are those proposed by Maury. The two "tracks" in red are the ones proposed by this Office. The twenty-four (24) routes in

[1] This, however, is not a practicable route.

blue and in red are those proposed by the German. Notice, they are laid down according to the different months as follows: —

No.	Month.	Europe to America.	Distance from Needles to Sandy Hook.	America to Europe.	Distance from Needles to Sandy Hook.
			Miles.		Miles.
1	December.	— / — / — / — / —	3,057	— / — / — / — / —	3,051
2	January .	— . — . — . — . —	3,065	— . — . — . — . —	3,087
3	February .	— .. — .. — .. —	3,060	— .. — .. — .. —	3,083
4	March . .	— ... — ... —	3,049	— ... — ... —	3,104
5	April . .	— x — x — x —	3,067	— x — x — x —	3,081
6	May . .	— o — o — o —	3,082	— .. — .. — .. —	3,119
7	June . .	—xx— xx —xx—	3,076	— xx — xx — xx —	3,114
8	July . .	— oo — oo — oo —	3,055	— oo — oo — oo —	3,086
9	August .	— xox — xox — xox —	3,073	— xox — xox — xox —	3,098
10	September	— oxo — oxo — oxo —	3,056	— oxo — oxo — oxo —	3,087
11	October .	— xxx — xxx — xxx —	3,046	— xxx — xxx — xxx —	3,061
12	November	— ooo — ooo — ooo —	3,082	— ooo — ooo — ooo —	3,058

Respectfully, your obedient servant,

R. H. Wyman,

Commodore U. S. N. and Hydrographer.

THE REPLY OF MR. FORBES.

Milton, *August* 2, 1874.

Commodore R. H. Wyman, *Hydrographic Office, Washington.*

Dear Sir: I beg leave to acknowledge the receipt of your favor of the 29th ultimo, with a chart wherein are laid down the Maury Lanes, the track recommended by you, and the German monthly courses. I thank you in the name of the Social Science and Technological Associations, for these very valuable papers. The only question I entertain as to choice of routes lies between yours and Maury's; the German being too complicated. To go to the north of the Virgin rocks carries us rather nearer to Cape Race than I like, especially in the season of ice and fogs, and I should rather prefer to straighten your curve from Long. 40° to 60°, and come by a route south of the rocks. The shortest great circle route, or that which comes nearest to it, may not be the safest and it is in the interest of safety rather than of time that we should turn our attention. You say that the route for a steamer is the shortest that can be made between two points, provided that on such route the prevailing winds and currents are not sufficiently adverse to obstruct or to hinder navigation. I should add to this, "provided they do not come too near to prominent points, as Cape Race and Nantucket shoals and the Virgin Rocks, as to endanger navigation in thick weather." I should never go out of my way in order to find soundings to verify my position, as I believe the observations that may be had, the thermometer, and Sumner's method of finding the place of the ship, will generally, if not always, give better results than soundings;

which to be of value must be often repeated, and which therefore involve loss of time, and are not popular with steamers.

I should much like to be in perfect accord with you, and it is not worth while to split hairs in determining the different routes out and back. If we can accomplish this it will prove a great boon to navigation on the beaten track of the Atlantic. The trifling difference of a few hours in the run seems to me to be of little account in comparison with avoiding Cape Race and the Bank fishermen, who will be more endangered by the devious German routes.

I am, very faithfully yours,

R. B. Forbes.

PRISON REFORM IN EUROPE AND AMERICA.

Since the meeting of the Association in May, at which Dr. Wines was present, he has been in Europe attending to his duties as president of an important Committee appointed at the session of the Prison Congress in London in 1872. From him we have received the following translation of the proceedings of the Committee at its last meeting:

(TRANSLATION.)

Minutes of the Meeting of the Permanent International Commission for the Study of Penitentiary Reform, 25th, 26th, and 27th June, 1874, at the Palace of the Minister of Justice, Brussels.

PRESIDENT — DR. WINES.

There are present: Messieurs Wines (United States), President; Beltrani-Scalia (Italy), Secretary; Dr. Frey (Austria); Dr. Guillaume (Switzerland); Loyson (France); Pols (Holland); and Stevens (Belgium).

Absent: Messieurs Baron Von Holtzendorff (Germany), detained by indisposition; Count Sollohub (Russia), on his way; and G. W. Hastings (England), from whom no word has been received.

1. Before opening the Session, the Commission pays its respects to M. De Lantsheere, Minister of Justice in the Belgian Cabinet. After the members had been introduced by M. Stevens, Inspector General of Prisons for Belgium, Dr. Wines, as the official organ of the Commission, expresses to the representative of the Belgian Government the best thanks of the body for the ready zeal with which the Government has made preparation for our reception, and offered all the information which the members of the Commission could desire. The Minister in reply, expresses the pleasure which it affords him to welcome the members of the International Commission to Belgium, and wishes them a pleasant and fruitful meeting.

2. On reëntering the Hall, placed by the Government at the disposition of the Commission, the President opens the Session at 10 o'clock A. M., with an Address, from which we cite the following passages.

From the Speech of Dr. Wines.

Two years have passed since the Congress of London, a period long enough to develop actual fruit, if any is ever to be yielded by it. We shall hardly be justified in summoning the world to another similar reunion, unless we can show that valuable results have followed the first. Can such results be shown ? Yes, beyond a doubt ; and in greater number, and more important, than could reasonably have been anticipated at so early a date.

One of the first acts of the Danish government, after the return of its Commissioner, Mr. Bruün, was to issue a decree, that all the associated prisons of the kingdom should thenceforth be conducted on the principles approved by the Congress of London; meaning, as I suppose, that the principle of progressive classification, agreeably to the Crofton system, should be applied in their management.

In Sweden the influence of the Congress has been conspicuous, both in awakening a more general interest in the penitentiary question and in leading to important legislative reforms in this branch of the public service. Among other reforms, a school for the special education of prison officers, both superior and inferior, has been established in connection with the central penitentiary near Stockholm, and provision has been made for the immediate establishment of two agricultural colonies for the reformatory treatment of juvenile delinquents, after the model of Mettray, in France. In short, an activity beyond anything previously known in Sweden, in regard to penal and reformatory institutions, is declared by the chief director of prisons to have been the direct result of the Congress of London.

In Norway the influence of the Congress has, so far, been most felt in the increased number and activity of the agencies employed for saving discharged prisoners. The strong hope is entertained and expressed by the friends of prison reform in that country, that its effect will soon show itself in a complete reorganization of the penitentiary system of the State. The conviction is felt that such a reform can be much more easily effected now than it would have been at any previous time in the history of the country, and that whenever such reform does come, the work of the London Congress will form the basis of the new organization.

Much progress, in the domain of prison discipline and reform, is reported to have been made in Switzerland since the Congress of London. The influence of that great international reunion has made itself felt there in a manner not to be mistaken. Few of the cantons have remained wholly unaffected by this influence; but no other has felt it so strongly as that of Neuchatel. In this canton the legislature has adopted a decree, introducing the principle of provisional liberation into the penitentiary system. The great council of the canton has also decided that the fortune of 800,000 francs, bequeathed to the State by M. Francis Borel, shall be devoted to the establishment of an asylum for unfortunate, neglected, vicious, and criminal children, to be organized

as an agricultural and penal colony, similar to the reformatory and industrial schools of England. The reforms inaugurated in this and other countries, both in criminal law and prison discipline, are reported as largely due to the influence of the Congress of London.

The governments of Italy and Holland have been stimulated by the Congress to prepare new penal codes on their respective countries.

The French, Russian, and Italian governments, have created special commissions on prison discipline, and are instituting important reforms in their penitentiary systems.

The result of the Royal Penitentiary Commission of Italy has been the introduction into the Italian parliament of a new penal code, which is to be discussed at the next session, and will doubtless be adopted by the nation, with or without modifications. Prison discipline itself has also made a marked advance. Three agricultural penitentiary colonies have been established in the Tuscan archipelago for the treatment of prisoners convicted of offenses not of the graver sort. These colonies have already proved a decided success. The labor performed is almost entirely in the open field, and both the physical and moral results are reported as satisfactory. This system will be gradually extended, and great results are hoped from it. Another reform, and of a different kind, has been inaugurated by the Italian government. There has been established at Rome a training school for prison officers. Four hundred soldiers have been selected from among the best and most deserving men in the army — nearly all of them skilled mechanics or farmers. These men are receiving, in the establishment just named, a special education to fit them to take the position and efficiently discharge the duties of prison officers, more particularly in the agricultural penitentiary colonies, in which it is intended to give to the prisoners a scientific as well as a practical knowledge of farming.

France, through her National Penitentiary Commission, has been engaged in an earnest study of all the problems embraced in penitentiary science. For nearly three years, this great Commission, named by the National Assembly and composed of an equal number of deputies and distinguished specialists from outside, has been pursuing this investigation. It has begun and concluded, on this grave subject, the broadest international inquest ever undertaken, and is now occupied in the preparation of divers projects of law for the reform of all branches of the penitentiary régime. Special mention should be made of a bill recently introduced into the National Assembly, on the report of M. Bérenger (de la Drôme), a member of the Assembly, who took part in the Congress of London. This bill subjects persons, sentenced for a year or less, to individual imprisonment during the whole term of their punishment, agreeably to the system now practised in Belgium, after having first been borrowed from France.

The Imperial Penitentiary Commission of Russia, of which our honorable colleague, Count Sollohub, is President, has, in like manner, been actively engaged in a similar study, and for nearly or quite as long a time. The Count submitted at London the bases of the scheme of prison reform, as originally drawn up by the Commission. On his return from London, the Commission resumed its work, and the result has been a definite and detailed

scheme of prison reform. The examination of this *projet* has been confided by the Emperor to a committee, which has accepted its basis, though modified in some of the details, and has submitted to the council of the empire the proposition to establish, as a point of departure, a central administration, under the control of the Ministry of Justice.

The Dutch, Belgian, German, and Austrian authorities are extending reforms in their previously advanced penal institutions; and the eminent prison officials from those countries who attended the London Congress seem to have returned to their duties, animated afresh, to further efficient and successful endeavors in the path of improvement.

In Great Britain there are numerous indications that the Congress of 1872 has both deepened and extended an interest in the penitentiary question; not the least of which is a vigorous movement, at this moment being put forth by eminent leaders of public opinion in that country, to secure the creation of a Royal Commission, similar to those of France, Russia, and Italy, for the study of the whole subject of prison treatment, and to devise such reforms in this branch of service as may be deemed wise and necessary. This movement has already made such progress as to render certain its ultimate success.

The same general remark as to an increased and widening interest in prison discipline and reform is applicable to the United States as to Great Britain. Suffice it to say that, among the evidences of a progress due to the Congress of London, is the fact, that at its late meeting at St. Louis, the American Prison Association instructed its appropriate standing Committees to submit to the next annual Prison Congress schemes of law, accompanied by the necessary explanatory reports, for 1, A complete penitentiary system; 2, a complete system of preventive and reformatory institutions for children and youths; 3, a complete penal code, adapted to the present needs of society. These several codes, or systems of law, when adopted by the Congress, are to be laid before legislatures of the several States of the American Union, and will be urged upon their attention and favorable action.

Even in distant Japan, represented in the Congress of London by several native delegates, the influence of that great gathering has been felt in the awakening of so strong an interest in its objects as to have resulted in the creation of a new penal code for the empire, greatly in advance of the one previously in force, especially in the substitution of imprisonment for capital punishment, in the case of a considerable number of crimes before punishable with death.

In view of the facts thus set forth, I look for a unanimous vote of this Commission in favor of calling another Penitentiary Congress, similar in character and design to that held in London in 1872.

3. Before proceeding to the orders of the day, the President announces to the Commission, that having had occasion when passing through England, to call upon Lord Carnarvon, President of the Congress of London, his lordship had requested him to bear to the members of the International Commission the assurance of his continued, and profound interest in the work undertaken by the London Congress,

and particularly in the labors of the Commission at its then approaching Session.

4. The President causes to be read a letter from Baron Von Holtzendorff, expressing regret at his inability to be present, and offering suggestions as to the basis of organization for another Congress.

5. The President further causes to be read a letter from M. Cardon, Director General of Prisons for the kingdom of Italy, who transmits in the name of the Government, to each member of the Commission, a copy of the statistics of the Italian prisons for 1872. The President is charged to convey to M. Cardon the thanks of the Commission for this generous gift.

6. M. Loyson introduces M. Emile Yvernès, Director of Statistics and of Criminal Registers (*casiers judiciaires*) of the Ministry of Justice for France. The President, in the name of the Commission, extends to M. Yvernès a cordial welcome, and invites his coöperation in our labors.

7. M. Beltrani-Scalia submits a report on international penitentiary statistics, together with the plan for recording them, which he had been charged with preparing. After having examined the statistical tables in use in different countries, M. Beltrani adopted the formularies which were subsequently sent to the several members of the Commission, with a request that they would, if possible, procure them to be filled up by their respective Governments. Favorable responses have been made to this appeal by Belgium, Denmark, Holland, Hungary, Italy, Saxony, and Sweden, all of which States have filled the blanks and forwarded the tables, as requested. Other countries have promised coöperation so soon as they shall be able to give it, particularly Switzerland, where the political organization is such as to make extremely difficult the collecting of statistics upon a uniform basis. The same is true of the United States; but that country will, it is hoped, soon figure on the tables of international penitentiary statistics.

While this question is under discussion, M. Yvernes, after having presented the members of the Commission with copies of a "Memoir on Relapses and the Penitentiary Regime" — a memoir which he had prepared for the International Statistical Congress — expresses the opinion that it would be desirable to have the two Congresses adopt the same bases for judicial and penitentiary statistics. He comes to this meeting, at the request of the Minister of Justice for France, with a view to give such aid as he may be able in its statistical labors, and above all to impress upon the Commission the importance of securing full returns on the question of relapses. M. Yvernes gives interesting details on the annual registers, and especially on the system of the *Casiers Judiciaires*, whose advantages he sets in a clear light.

Dr. Frey exhibits the importance of sanitary statistics, and of embodying full details on this point in our tables.

The Commission, after full discussion of the statistical question, adopts the following resolutions:—

(*a*) It returns thanks to M. Beltrani-Scalia for the important and disinterested labor he has performed, accepts the statistical tables he has prepared, and begs him to publish the same, as he proposed to do.

(*b*) It charges its President to thank the Governments which have responded to the appeal addressed to them, and, in the name of the Commission, to make a fresh appeal to such Governments as have not yet furnished the information sought.

(*c*) It names M. Stevens as successor to M. Beltrani in the office of Secretary. M. Stevens accepts the position on the same conditions as his predecessor. He will take account of the observations which may be addressed to him by his colleagues, with a view to simplify and complete the statistical formularies, and thus to facilitate the preparation of the responses and secure the gradual definitive adoption of these formularies in all countries.

(*d*) After having heard with interest the exposé of M. Yvernès and returned to him its thanks therefor, the Commission asks M. Stevens to have an understanding with him on the question of relapses, and begs M. Yvernès to continue to take part in our labors and thus serve as a bond of union between the Statistical Congress and the Penitentiary Congress, since it is important that we should be of one mind on the question of prison statistics.

8. The question whether another International Congress for the study of Penitentiary Reform shall be convoked, is, after discussion, determined affirmatively by a unanimous vote of the members.

9. The time for holding the said Congress is fixed for the year 1876.

10. As regards the organization of the Congress and the programme of questions to be discussed, the Commission decides to confide the preparation of a draft of definitive rules to a sub-commission, to consist of MM. Von Holtzendorff, Pols, and Stevens.

11. Dr. Frey submits an elaborate and detailed programme of rules and regulations for the International Penitentiary Congress, and for the Permanent Commission of said Congress, for which thanks are given to the author.

12. With a view to making known to this sub-commission the opinions of the members of the Commission, an informal discussion takes place on the several principles formulated in the project of Dr. Frey.

13. Dr. Frey's paper, and also the letter of Baron Von Holtzendorff, are referred to the sub-commission.

14. Considering the utility and convenience which would accrue from having in the Commission a delegate from each country represented in the Congress of London, the President is instructed to address all the Governments not now represented in it, and to request that each name a delegate to be present at all future meetings of the Commission.

15. To the end that all desirable success may be assured to the next Congress, the Commission thinks that the number of questions to be submitted for discussion ought to be limited to those which are most practical and of general interest; and that each question embraced in the programme adopted, should be made the subject of one or two short reports by competent persons, who shall have been designated by the Commission; and that both the questions and reports should be published and distributed several months in advance of the opening of the Congress.

16. The Commission is of opinion that the three sections proposed by Dr. Frey (of legislation, execution of sentence, and preventive measures) may be retained.

17. As it is important that the decisions of the Congress should have a real value and exert their legitimate influence on public opinion, it seems to the Commission necessary that the Congress should be composed, above all, of official delegates, named by the Governments of the various countries interested in the study of penitentiary reform, and that the vote upon the propositions formulated should be taken by yeas and nays, so that all may know the names of those who constitute, respectively, the majority and the minority.

18. The question relating to the official language usually employed in International Congresses, is left undecided until it is determined in what place the next Congress shall be held. The Commission is of opinion that whatever the language adopted, exceptions must necessarily be made in particular cases. A letter of M. Bournat (France), addressed to the President, in which he discusses this question, is referred to the sub-commission.

19. The Commission expresses the wish that Dr. Wines would undertake the preparation of an essay, in which he will offer a comprehensive review of the progress made in Penitentiary Reform, since the Congress of London, in the various countries of the world. This report should include the year 1875.

20. As to the place of meeting of the next Congress, the Commission thinks it inexpedient to come to a definitive resolution on this point before it is informed whether such meeting shall have not only the sympathy of, but be positively desired by, the Government of the country in which it is proposed to be held. The Commission refers this question to the examination of the sub-commission, which will formulate, in due time, the proper notification in this regard.

21. The sub-commission, after having terminated its preparatory labors, will send, at least one month before the next meeting, to the members of the Commission, notice of the results reached on the several questions referred to its examination.

22. The Commission decides to hold another meeting next year, some time during the month of August, at Bruchsal (Baden). The President is charged with the convocation of the Commission.

23. M. Beltrani-Scalia thinks that it will be useful to establish an organ of publicity for the different countries which took part in the Congress of London, and for other countries which desire to keep themselves well informed in regard to the progress realized in the penitentiary domain. He therefore proposes the publication of a monthly journal, under the following title: "International Bulletin for the Study of Penitentiary Reform, published with the Coöperation of the Members of the International Commission, by ." This Bulletin will contain the official documents, laws, regulations, instructions, etc., adopted by the different countries, and sent to the Editor. The Bulletin will be printed in the French language. The Commission adopts unanimously the proposition of M. Beltrani, and charges him with the duty of editing it. It gives him its warmest thanks, in consideration that he not only accepts the editorship, but also all the financial consequences of the enterprise. M. Beltrani requires that communications for the Bulletin be addressed to him in French, it being understood that he cannot charge himself with the translation of the documents that may be sent to him.

The Commission hopes that this international organ of publicity will hold in friendly relations all those persons who took part in the Congress of London, and all others who are interested in the solution of penitentiary questions.

24. Thanks are voted by the Commission to Dr. Wines, its devoted and admirable President.

25. The minutes are read, adopted, and signed by all the members, and the Session closed June 26th, at 5 o'clock P. M.

(Signed)

WINES, *President.*
BELTRANI-SCALIA, *Secretary.*
LOYSON.
FREY.
POLS.
GUILLAUME.
STEVENS.
YVERNES.

June 26th, 1874.

ADDENDUM TO THE MINUTES.

26. Count Sollohub (Russia), having arrived at the moment of final adjournment, the Commission determined to reopen its Sessions. Accordingly, a meeting is held in the evening of June the 26th, at the residence of M. Stevens, at which the Count reads a "Memoir on Prison Reform," which had been addressed by him to Count De Forresta, of Italy.

27. On Saturday, during a visit to the Penitentiary of Louvain, the Commission, having opened a session in the office of the Director of the Penitentiary, requests Count Sollohub to cause his Memoir to be printed for the use of the sub-commission.

28. Count Sollohub declares that having read the minutes of the meeting, he gives his adhesion to all the conditions contained therein. Nevertheless, he is of the opinion that the word Congress should be replaced by the word Conference, into which should be admitted only official delegates of their respective Governments, and that the whole penitentiary question should be tested in its connection with criminal legislation.

29. Dr. Wines submits a letter received from M. Petersen (Norway), in which he expresses his opinion on the subject of another International Congress, which he looks upon as a necessity. This letter, which contains also suggestions relating to the organization, the place, and the time of the Congress, is referred to the sub-commission, as is likewise a letter of M. Bruun (Denmark), treating of the same subject, and announcing that Count Sollohub will represent Denmark and Sweden in the Commission.

30. The Commission then at two o'clock, P. M., June 27th, adjourned *sine die.*

DEPARTMENT OF SOCIAL ECONOMY.

A Preliminary Report by a Sub-committee of the Department.

Submitted at a Department Meeting, September, 4, 1874.

INTRODUCTORY.

Soon after the organization of the Department in December, 1873, the undersigned were appointed (in January, 1874) a special committee on the Charlestown convict prison, which is the ancient and principal State Prison of Massachusetts, and which, at that time, was attracting public notice in consequence of incidents in its management, and the general tone in respect to Prison Reform assumed by its chief officer, (Warden Chamberlain) in his Annual Report for 1873. The two members of the Committee had long been familiar with its condition, Mr. Ayres having been at one time a resident of Charlestown, and a Sunday-school teacher in the State Prison, and Mr. Sanborn having been an official inspector of all the Massachusetts prisons since October, 1863, and at one time a frequent visitor at Charlestown. Upon prosecuting their inquiries, and after making one or two brief reports to the Department, this Committee saw occasion to enlarge the scope of their inquiries somewhat, and obtained permission to report generally upon the whole prison question, as it presents itself in the United States to-day. In doing this, they will keep especially in view the two contrasted, and in some respect conflicting systems of discipline, which are perhaps best exemplified, in America, at the Charlestown State Prison of Massachusetts, and the Philadelphia Eastern Penitentiary of Pennsylvania. These prisons, in their present construction, are of nearly the same age, and do not differ greatly in the number of prisoners which they usually have contained. Both now have between six and seven hundred convicts, — the number at Charlestown on the first of September, 1874, being 672, and the number at Philadelphia, 630. The latter was last visited by Mr. Ayres on the 29th of March last; the former by both members of the sub-committee, on the 19th of August. The fact that both of these prisons are now crowded, and that Massachusetts has voted $1,000,000 to build a new State Prison at Concord, will give occasion for some remarks on the size of prisons and prison architecture.

I. THE PRISON SYSTEMS NOW IN USE.

By general agreement among those who have studied the prison question, the principle of "Secondary" punishment — that is, of ter-

minable imprisonment as opposed to the punishment of death or its equivalents, — are these three, which have been well stated by an eminent English magistrate, the late Recorder Hill, of Birmingham: —

First, the *deterrent* principle, or the application of pain, with the intention of proving to the sufferer and to all who may learn his fate, that the profits of crime are over-balanced by its losses. *Second*, the principle of *incapacitation*, as Bentham styled it, that is, the detention of the culprit in confinement in order to protect society from his misconduct by rendering him incapable, for the time, of injuring society by active crime. *Third*, the *reformatory* principle, by which the culprit is brought to see the moral nature of his offense, to repent thereof, and resolve to offend no more, even when at liberty and in no danger of punishment. Thus *incapacitation* deprives the malefactor of his *power* to do that particular wrong; *deterrent penalties* subdue by fear his *desire* to do wrong; while by *reformation*, that *desire* is itself extinguished, and replaced by aspirations and habits which secure society against his relapses, and the culprit himself against the probability of a relapse into crime. It is therefore evident that reformation is the most important of the three objects of imprisonment, though it may not be, and generally is not, the most attainable. It is, however, kept in view, upon theory, in all the modern codes of penal legislature, and is especially prominent among the statutes of the United States.

It must be said, however (and this the advocates of arbitrary and unreasonable methods of prison penalty often misstate), that the modern advocates of Prison Reform do not lay stress upon reformation alone, nor do they seek this by gentle measures and mild discipline alone. A model prison, according to the ideas of Maconochie, of Crofton, and of Brockway, is not a place of easy and pleasant seclusion, where villains are taught that they can be

> "Carried to the skies
> On flowery beds of ease."

On the contrary, such a prison is what Maconochie called it — "a school of severe adversity" — in which there is a place for punishment as well as for reward, for justice no less than for mercy. To illustrate what we mean, we can do no better than to quote from a treatise by Captain Maconochie, written in 1839, a year before he took charge of his famous penal colony at Norfolk Island in the South Seas. The work in question is one of the first which he published, and was printed in Australia.[1]

[1] Alexander Maconochie, a Scotchman, and for many years an officer in the British navy, was born in 1787, and died about fourteen years ago. At the time he took charge of Norfolk Island he was fifty-three years old, and he had spent the greater part of his life in a rough way among sailors and soldiers. For two or three years he was a prisoner of war

"With reform as the object of criminal administration, the better feeling of even the most abandoned criminals would from the beginning sympathize; whereas, when merely suffering and degradation are threatened and imposed, it is precisely these better feelings that both first and last are most revolted and injured by them. The sole direct object of secondary punishment should therefore, it is conceived, be the *reform*, if possible, but, at all events, *the adequate subjugation and training to self-command* of the individuals subjected to them; so that, before they can regain their full privileges in society, after once forfeiting them, they must give satisfactory proof that they again deserve and are not likely to abuse them.

"This principle does not proscribe *punishment, as such*, which, on the contrary, will, it is believed, *be always found indispensable, in order to induce penitence and submission;* nor, as may be already inferred, does it lose sight of the object of setting a deterring example. But it raises the character of both these elements in treatment, placing the first in the light of a *benevolent means*, whereas it is too often regarded as a *vindictive end*, and obtaining the second by the exhibition of the law *constantly and necessarily victorious over individual obstinacy*, instead of frequently defeated by it. It cannot be doubted that very much of the harshness and obduracy of old offenders arises at present from the gratified pride of having braved the worst that the law can inflict, and maintained an unconquerable will amidst all its severities; and for this pride there would be no place, if endurance alone could serve no useful end, and only submission restore to freedom.

"The end, *reform*, or its substitutes, sustained submission and self-command, being thus made the first objects of secondary punishments, it is next contended that they can only be adequately pursued and tested, — first, by dividing the process employed into specific *punishment for the past*, and specific *training for the future*, and next, by grouping prisoners together, in the latter stage, in associations made to resemble ordinary life as closely as possible (in particular, subdivided into smaller parties, or families, as may be agreed to among the men themselves, with common interests, and receiving wages in the form of marks of commendation, exchangeable at will for immediate gratifications, but of which a fixed accumulation should be required before the recovery of freedom), thus preparing for society in society, and providing a field for the exercise and cultivation of active *social virtues*, as well as for the habitual *voluntary* restraint of active social vices."

After his four years' experience at Norfolk Island, some of these principles were modified by Maconochie, but in its main features his system, as explained to our Massachusetts reformer, the late Horace Mann, in 1846, and as afterwards made public in numerous tracts and papers, was the same laid down in the Australian pamphlet of 1839. In 1847, he wrote thus: —

at Verdun, in France, and so learned by experience what imprisonment is. He was recalled from Norfolk Island in 1844, and the old system of cruelty was reëstablished there, ending as it had before 1840, in mutiny and murder. In 1849 he was appointed Governor of the Birmingham Gaol, but was removed in 1851, by magistrates who misunderstood his system. He died on the 25th of October, 1860.

"The Mark System proposes to place criminals in a state of *utter poverty, destitution, and bondage*, from which nothing but their own steady, persevering, unflinching exertion, can extricate them. They are to be at the bottom of the well, with a ladder provided by which they *may* ascend if they *will*, but without any bolstering or dragging up by other than their own efforts. If they even halt they are made to descend, for their maintenance from day to day is to be charged to them. Are there not here, then, sufficient elements of suffering to produce a deterring effect? yet everything is strictly conducive to reform; and why, therefore, go further? Why introduce, in addition, chains, and dungeons, and factitious offenses, and all the other apparatus of slavery, so much clung to in ordinary prison discipline, yet so injurious alike to officers and men? Why stigmatize that system as over indulgent which merely ejects these, while substituting at the same time far harder conditions to a degraded mind than they constituted?

"A fallen spirit can easily put up with a little more degradation, a little more contumely, a few harsher restrictions which there is always a contemplated pleasure in evading; but to set his shoulder to the wheel, steadily to struggle out of his position, to command his temper, his appetites, his self-indulging propensities, all voluntarily, all from an *inward* impulse stimulated by a moral necessity, this is a far harder imposition." . . . .

"My intellectual apparatus I propose uniformly for the express purpose of awakening, stimulating, and keeping the mind active, as well as the body; storing it, at the same time, with better thoughts than the disgusting images otherwise most familiar to prisoners; and in this light they cannot be too highly valued. It is in the intervals of entire repose, which, in ordinary management, are allowed to alternate with severe physical toil, that such men corrupt each other. My music, readings aloud, schools, novels, and other similar machinery, then kept many a devil out, and, perhaps, introduced some angels in. They were negatively beneficial at all events, and, I feel assured, in very many cases, positively beneficial also."

Here we find suggested all the chief peculiarities of the so-called Irish, or Crofton System of convict treatment, which was first put in execution by Sir Walter (then Captain) Crofton in Ireland in 1854. Undoubtedly Sir Walter and his associates added many practical details of convict management, and put the plan of Maconochie into a working form, and one which, with slight modifications, can be adopted in any country. We believe that it ought to be so adopted in America, and thus gradually supersede the two or three systems now in use among the forty-five thousand prisoners now in confinement in the United States. The manner in which Maconochie himself regarded the possible introduction of his "Social" prison system in this country, will appear from the following letter written by him to HORACE MANN, nearly thirty years since.[1]

[1] This letter, with a longer one published in *Old and New* for April, 1874, was read at a meeting of the American Social Science Association in 1865, but has never before been printed.

CAPTAIN MACONOCHIE TO THE HON. HORACE MANN.

BRITISH AND FOREIGN INSTITUTE, GEORGE STREET, HANOVER SQUARE,

London, 2nd January, 1846.

SIR: — Mr. Combe, of Edinburgh, has communicated to me your wish to have copies of my chief writings on the management of convicts, and I have great pleasure in now transmitting to you all at present in my possession. The volume that I published first is out of print, and I am lending now here the only copy that I kept. But the pamphlet inclosed contains rather more than its chief results, and the other two printed papers bring my views down to their latest exposition, having been printed here within the last three months. I have never published any account of my Norfolk Island experience, but it is detailed very minutely in five successive Reports which, as the subject seems at present likely to come before our Parliament during its next session, I am in hopes will then be printed by its order. As however, one subject, and that your favorite one, is alluded to in one of the printed papers inclosed, with a specific reference to a case in one of these Reports, I have had that passage copied for you, and also inclose it.

I should be very happy if the views thus explained engaged your attention, and through your means, or any other, obtained the benefit of consideration in your great country as well as ours. They have had great injustice done them here as yet! Having engaged the attention of our Transportation Committee in 1838, it recorded in the Report a wish that they should be tried, on which I was appointed to Norfolk Island. But adequate consideration was not given to the necessity, if I was to try a system of encouragement rather than intimidation, of sending out summary orders that any expectations I was thus led to hold out should be realized. Amidst the bustle of other matters, nearer home, and thus more urgently pressing, this was overlooked, — and even the letter of a law which cramped all my proceedings remained unaltered. The issue of fixed rations continued also undisturbed, and thus my system was never properly tried at all, although in England I was considered to be experimenting on it. I wrote again and again, pointing out what would be the necessary consequence, but meanwhile our ministry was also changed, and the whole subject was comparatively forgotten. — (Pray observe that this portion of my letter is to a certain extent confidential. Anxious as I am at present to revive the subject, as it were, *de novo*, I do not wish to drag into prominence, especially in another country, old sores: and the attitude of complaint, or, as it might be interpreted, appeal from my own government to the public opinion of foreigners, would be an invidious position, and might much embarrass my further proceedings.) The issue, however, was that during the first two years, while my marks were yet in credit, and it was thought that indulgence would certainly be gained through their accumulation, no men could *behave better than mine did.* A large proportion of them were the lees, the refuse even of our penal colonies, men who for years had set every menace, every infliction, at defiance, and who by this, their long conflict with physical coercion, of itself, and apart from original disposition (which was also in many cases bad), were really become very bad and turbulent.

Yet not only were they well conducted while under the influence of the marks, but even after their want of tangible value was proved, through the habits of tranquillity and docility induced by them, and the toning down of turbulent passion, caused by them and by other means and exertions, they continued well conducted. They did not exert themselves so zealously as when stimulated by a belief that their exertions would tell on their liberation ; but this indolence became the worst feature in the vast majority of them. A few went further, and attempted, as they phrased it, "to feel my pulse," to ascertain whether my aversion to corporal punishment and other physical coercion was weakness, or not. With them I was forced to come at once to extremities: — and thus I got the character at Sidney of having abandoned my own system, finding it inadequate. The truth is, I had never had it ; and when it ceased even to have a shadow of existence, I had no choice but to fall back on the old bad methods. But my confidence in moral agency never faltered so long as I had any apparatus for it all ; on the contrary it was, and is, a marvel to me now, how long and far its influence extended even after the substance was well known and understood about me to have no longer existence.

At length I was recalled. This was done as kindly and complimentarily as *words* could make it. Lord Stanley wrote to say that it was not done through any want of respect for me, but I had advocated so elaborately a system of discipline that was not eventually approved of, that he could not imagine that I should wish to remain. Nor did I ; on the contrary, I had for some time felt that if my views deserved maintaining at all, it was only at home that I could do them justice. The loss and expense so incurred were very great. I had other interests in the Australian colonies, and a large young family with me, but I did not hesitate, and I am even already rewarded. I am becoming very sanguine in my hopes of speedily turning the tide of official opinion here altogether. If I eventually succeed in this also, even my unsuccessful experience at Norfolk Island will have been valuable to me. It has cleared my views ; in some very few points modified them, — and where this has not taken place it has given me great additional confidence in them. Among other things, it has raised, not lowered, my estimate of the capabilities of moral recovery lingering in most criminals, even after the appearance of them has long faded. Incidents rise to my recollection, almost without number, as I write, illustrative of this ; but I cannot venture here on the subject. I am afraid that, even as it is, I am exhausting your patience.

I feel assured that the plan would work especially well in your country. Your people are generally prudent, well-informed, or at least intelligent, and with the strong feelings of attachment to freedom in which they are reared, a system which appeals to the usual impulses of free society should operate favorably on them, — should bend without breaking them, — which seems to me to express the perfection of a secondary punishment.

In this point of view, my experience leads me to think both your present systems, Silent and Separate Imprisonment, defective. I have never seen the Silent System adopted without eliciting all the worst propensities. Evasion becomes the universal rule, and the extremely violent and severe punishments inflicted in order to repress this, by their disproportion to the abstract quality of the offenses incurring them, shock every sense of justice, and call out all

the bitterest and most revengeful feelings. Separate imprisonment, on the other hand, *I have always found beneficial up to a certain point*, — but this point is not a distant one, — and if passed unobserved, the effect is, I think, rather injurious than otherwise. A man is first very sorry, if properly instructed, even penitent, and forms many good resolutions. Through three or four months also, he will maintain these ; but about this period, a little sooner or later, according to temperament, either he gets acquiescent, and looks about for present amusement or indulgence, or he becomes morbidly irritable and impatient. And both states of mind I have found injurious to moral recovery. As with the monks in the Middle Ages, ascetic discipline appears to me, when prolonged, *either to lower the intellect, or exasperate the feelings, or both.* All my experience leads me to this conclusion.

The weightiest objection to " Social " treatment in any society is the chance of recognition in after years, inseparable from it. But if our punishments were made first of all *Reformatory*, and generally successful in this object, the prejudices of society against the early criminal would abate. In our penal colonies now, a well conducted ticket-of-leave man, or other convict prisoner, is preferred as an overseer to a free emigrant. It is his experience that gives him this preference at present ; but if to this were added a general knowledge in society, that no one could pass through penal training without having exhibiting a long course of actual social virtue, both active and passive, both exertion and self-command, this preference would be both more general and better founded.

At all events, for a long time to come we must transport ; and if at either Auburn or Sing-Sing, where a Social *Silent* System is already maintained, you would try a Social *Moral* one, you would soon get important results, and perhaps even yet anticipate England in setting the example of a really persuasive and reformatory system.

I shall be happy at any time to hear from you in reply, and give you any further information.

I have the honor to be sir, with much consideration,

Your most Obt. Servt.

The Honorable HORACE MANN. A. MACONOCHIE.

It does not appear that Mr. MANN, or any of his friends (the late Senator SUMNER, Dr. WAYLAND, and Dr. S. G. HOWE among the number), made any active effort to introduce the method of Maconochie in 1846–7, into the prisons of the United States. Then, as now, the Congregate and the Separate, or the Auburn and the Pennsylvania Systems, were in vogue, and it was about their respective merits that fierce controversies were waged. The Irish, or Crofton System, has since come before the world, and has, to some extent, combined what was most valuable in the Separate, the Congregate, and the Social, or Maconochie System. But we are still assured by the advocates of the Auburn and the Pennsylvania Systems, that their methods are the best. Let us, therefore, consider these systems for a moment.

The Pennsylvania, or Separate, or Cellular System, and the Auburn, or Silent Congregate System, have each some advantages which the other does not possess. The former, when mildly administered, as now in Philadelphia, and the latter, when strictly carried out, come nearest to each other; yet even then, their results are widely different. And in fact, the Auburn System, in its strictness is now scarcely carried out anywhere in America; certainly not at Charlestown, where the warden has declared that he cannot prevent his prisoners from communicating with each other, nor from obtaining and reading newspapers, to which he ascribes a very malevolent influence. The Congregate System, as now administered, has this merit, that it does not constantly war against the social instinct in men, nor force them so much into a morbid and consuming self-consideration; while it is also more economical, and more easily adapted than the Separate System to the condition of things in America. The Separate System has the merit of securing much greater freedom from contamination, of making, at least for a time, a deeper impression on the convict's mind, and of securing more leisure and opportunity for school instruction. It seems to be equally careful of the health of convicts, though perhaps for some special reasons, more likely to produce a morbid and unsound state of mind; it is also, as practically administered at Philadelphia, more reformatory, less capricious, and more costly, than the Congregate System as administered in Massachusetts. In the Philadelphia prison, the convicts earn about one half of the cost of their support, including the salaries of their officers; in the Charlestown prison they earn this year, about five sixths of their cost; which is, perhaps, a fair average of the proportion of earnings to expenses in the State prisons throughout the country. As a rule, the Congregate System in our prisons tends to grow worse rather than better, and has now, in most of the States, and notably in Massachusetts, little or no influence in repressing crime. This appears from the fact, that while in 1864, with a population of about 1,250,000, there were less than 400 convicts at Charlestown, there are now, in a population of 1,600,000, more than 670 convicts there. The population having increased less than 30 per cent, the convicts have increased more than 75 per cent in ten years.

II. EXISTING PRISONS. — THEIR CONDITION.

A. — THE PHILADELPHIA PRISON.

The Eastern Penitentiary at Philadelphia, built and managed for nearly fifty years on the Separate System, as opposed to the Congregate, which now prevails everywhere in the United States except in Pennsylvania, has generally maintained a high reputation during all

this period. It has commonly been conducted by wardens of experience and intelligence, and in its boards of inspectors have always been gentlemen who have made penal law and prison discipline a study. This has by no means been the case at all times in Massachusetts. The Philadelphia prison has also been managed with honesty and economy, according to the views of economy which the Pennsylvania system admits; for there it is never expected that the labor of the convicts shall pay their whole expenses. Its present warden is Mr. Townsend, a Quaker, now nearly seventy years of age, and a man of great humanity and good sense. When visited by Mr. Ayres in the latter part of March, the number of convicts there was about 625, while the whole number of cells is but 562; so that about 125 of the convicts were lodged with others, and did not come under the rule of strict separation. From the notes of this visit the following extracts are made: —

From the central hall seven arched corridors radiate, with cells on either side, and the prison is now so much crowded that some forty or fifty cells have two convicts in each, thus rendering it, so far as they are concerned, not a separate prison. There are also prisoners who do the general work of the place, and of course are brought into contact with each other. The prison and yards were in good order, and all cells were clean and well ventilated. Many of the convicts had various articles of comfort in their cells, and all can have them, if they will do overwork and earn them. Each cell has a gas jet, a water faucet and a water closet,— the latter is a *very great gain* for the prisoner, as it removes the cause of a very injurious and offensive odor, noticeable in the Charlestown cells, owing to the use there of a wooden bucket. The warden says the prisoners rarely give them any trouble about these things; they are allowed books, and gas to read by in the evening till nine o'clock. There is a speaker to address them in every corridor each Sunday, and there are also a number of persons who come up from the city every Sunday as well as other days, to talk with them for their improvement, going from cell to cell. They work principally on chairs and shoes, and do all in their separate cells. The ventilation of the cells and corridors seemed to be particularly good.

The warden says the walls of the yard are thirty-five feet high, inside, of smooth stone, and no one has ever got over them. A powerful Bude, or other chemical light, is so arranged as to make every part of the yard as light at midnight as at midday. The warden has entire confidence in the system, and says he rarely has any trouble from the prisoners; uses no corporal punishment, but deprives the troublesome ones of some of their privileges, and once in a great while places a refractory convict in a dark cell under the prison and feeds him on bread and water. Many prisoners raise flowers in gardens connected with the cells, and have their rooms ornamented with pictures; one had his cell frescoed. They see and can talk with their officers three times each day, when they are fed, and can see and converse with other persons at proper times. When they have preaching, the doors of their cells are opened about six inches and fastened; the prisoners then can sit near the door and hear all that is said, but without seeing the preacher.

There is a prison mill which grinds all the wheat used ; they do not bolt the flour and so the bread is dark colored, but tasted very sweet and good ; the rations seemed better than what is fed to the prisoners at Charlestown. The warden contracts with the butchers who furnish the large hotels, and takes their poorer pieces, which give a very good quality of meat, — the poorer parts of a nice ox being much better than the nicer parts of a poor ox.

Mr. Townsend appears to be very well fitted to his place, and has great faith in the principle of reforming by kindness. He admits that all cannot be reformed, by any process, but thinks kindness will improve more than can be reached in any other way. He considers it of immense importance to their doing well after they go out, that they should never see each other in the prison, and so have no possible chance to become acquainted afterwards. He says that about eighty per cent. of those who leave here are never heard from again in any penal institution.

B. — THE CHARLESTOWN PRISON.

This is commonly reckoned one of the two or three best prisons of its class — what in Europe are distinctively called " Convict Prisons " — on the whole continent of America. To a certain extent this reputation is deserved, and perhaps it was never better grounded than now ; yet we all know how defective a prison can be in America, and still take high rank by comparison with others that are worse. Its general merits are, (1) Comparative mildness of discipline, and a willingness on the part of the officers to see the convicts reformed ; (2) Frugality of administration, so that it has been no burden to the tax-payers, but has yielded small profits above its yearly expenditures ; (3) A well-organized system of employing all the convicts in labor ; (4) The forms of instruction in secular and religious matters, including a school, a library, a Sunday-school, and a chaplain ; and (5) Some oversight of the convicts after their discharge. Its special defects seem to be, (1) A want of knowledge on the part of the warden and other officers, of what can really be done for the reformation of convicts ; (2) A lack of enthusiasm and of practical efficiency in the general management, so that the machinery in operation does not produce the best results in checking crime ; (3) An arbitrary and military spirit in the discipline which is unfavorable to the highest success among convicts ; (4) Too little attention to the sanitary condition and school education of the convicts ; and (5) The lack of a proper system of rewards and punishments inside the prison. Add to this, just at present, the lack of sufficient means to look after and give employment to all the convicts who can work, both in prison and upon their discharge.

a. (1) Compared with the state of discipline in the Charlestown prison twenty years ago, its present system seems very much more humane and rational. At that time, flogging was allowed, and often prac-

ticed, and severity towards convicts was the rule. Flogging is now forbidden, and the chief punishment is solitary confinement, which, though in some cases practiced for too long periods, and upon insufficient grounds, is yet not so common as to constitute a distinctive feature in comparison with twenty years ago. There is also, as has been said, a willingness on the part of the officers to see the convicts reformed, and in some cases this may lead them, and actually does lead them into active efforts for their reformation, with visible and satisfactory results. But there is no constant, persistent, and methodical effort, as there always should be, to make the convicts better men.

a. (2) The frugality of administration, of which mention has been made, is sometimes used as a reproach, as if the State were "making money out of its prisoners," — which is a phrase frequently heard. It is possible, of course, to insist too strongly upon making our prisoners, self-sustaining; but, as a rule, it will be found that the best prisons, at least those of the Congregate kind, are those most nearly self-supporting. This is so for the obvious reason that systematic labor, under honest direction (without which no prison can long earn its current expenses), is one of the best aids to the discipline of the convicts, and is in itself a sanitary and reformatory agency. Add to this, that where frugality and good sense appear in the financial management of a prison, they are very commonly accompanied by the corresponding good qualities of a moral nature in the officers. It is to be said, however, that the present year has witnessed the end of a long self-supporting period at the Charlestown prison, in consequence of the burning of workshops, termination of contracts, and a general dullness in the labor market. The expenses at Charlestown (independent of the $30,000 or $40,000 expended in the rebuilding of workshops, etc.), will this year exceed the earnings from labor by at least $25,000; and at the present time but little more than half the convicts there are employed in any kind of labor. Upon a recent visit we found more than three hundred of the able-bodied men sitting unemployed in the new workshops, or engaged for a part of the day (some forty of them), in attending school.

a. (3) It will thus be seen that the "well-organized system of employing all the convicts in labor" has broken down for the present, though not for any long time, as we hope. In case a new State Prison is built at Concord, as is now contemplated, many of these idle convicts will be sent to work on the new constructions, where they will earn the cost of their subsistence in another way than by labor for the prison contractors, who have been paying for their work at an average rate of nearly one dollar per day. Under this contract system there were many incidental evils, though probably no great abuses, and it is possible

that the present period of transition will really be employed to put the whole management of convict labor on a better footing.

a. (4) The "forms of instruction in secular and religious matters" at Charlestown have, until lately, been merely matters of form; for no well-organized school system or course of religious instruction has prevailed there for many years, unless such may be the present fact, of which we by no means feel sure. Out of six hundred and seventy convicts, only forty are men attending a secular school (for five hours a day except Saturdays), and only one hundred and fifty are in weekly attendance upon the Sunday-school. Both these schools are doing good, and the day school is perhaps the germ of something approximating to the admirable school system introduced in Ireland by the late Mr. Organ. But for the present it is regarded by the warden merely as an experiment; though we have reason to think that the chaplain, under whose more immediate charge it is, looks upon it in a somewhat different light. Prison schools have long ceased to be experiments in regions where the nature of prison discipline is best understood.

a. (5) A State agent, having at his disposal a few thousand dollars each year, is charged with the duty of looking after convicts upon their release, and of aiding them to procure honest employment. Not being an officer of the prison, brought into daily contact with the men for whom he is to find places, before they are discharged from the prison, (as was fortunately the position of Mr. Organ in Ireland), this State agent does not generally know much of the men whom he aids, and therefore cannot readily do for them what a better knowledge of their real characters would allow. Therefore, while this agency accomplishes some good, it by no means occupies the whole field, and needs to have its powers and facilities much increased.

b. — DEFECTS IN THE CHARLESTOWN PRISON.

We have already touched on some of the obvious defects at Charlestown, while speaking of the merits which that prison may justly claim. Other and more general ones grow out of the Congregate System itself, and cannot be remedied without a material change in that. In contrasting this system with that long since adopted, and still zealously maintained at Philadelphia, due allowance must be made for the social atmosphere and traditional influences of the two localities. Philadelphia is a Quaker city, and its philanthropists have long been imbued with a love of peace and order, and a great distrust of violent and martial measures in dealing with their fellow-men. Thus we see in that city a great prison managed successfully by a man of peace, who probably never carried weapons in his life, and is now far beyond the age when most men think of defending themselves or assaulting others by physical force. In Boston, on the contrary — for Charlestown is now a

part of Boston — warfare and men of arms have been held in higher esteem; whether this be the reason or not, the most striking feature in the present management of this prison is the arbitrary and military spirit shown in its discipline, the occasional violence, and the constant apprehension of it which prevails. Educated as a soldier, and accustomed for many years to the rigid enforcement of martial orders, Warden Chamberlain sees the obvious and superficial advantages of military discipline in a prison, without being aware of its unconquerable faults, which have been well pointed out by Maconochie and other high authorities. The purpose of prison discipline should be to mould the individual and guide him to self restraint, upon moral and religious motives; while military discipline is based upon force, and aims to produce a general result on masses of men, wherein each individual is only part of a great machine. To a certain extent the same qualities are needed for a great soldier as for a great prison reformer; there should be courage, authority, singleness and energy of purpose, in both professions. But the methods of the two are as opposite as those of the gardener and the blacksmith; and it would be more unreasonable to cultivate roses and tomatoes with a sledge-hammer, than to attempt personal reformation by military manœuvres.

In most prisons the sanitary condition of the convicts is seldom so well cared for as it should be, and it has been in some respects much neglected at Charlestown. Proper bathing, sufficient clothing, and cells of the proper temperature, have not always been furnished to convicts there, and there is at least one well-authenticated case of a convict whose feet were frozen while in solitary confinement. The insufficient provision for school instruction has already been mentioned. School attendance should be regular and compulsory, except for those who do not need it, — the number of whom is not so great as many suppose, — for few of the convicts are otherwise than ignorant in general matters, though most of them can read and write after a fashion.

The lack of a proper system of rewards and punishments inside the prison is the most serious of all the defects, and at the same time the most common of all, for very few prisons in this country do have a proper system of rewards and punishments. The subject is a difficult one, and until within the last thirty years, no such system of universal application can be said to have been devised. But since Maconochie and Crofton invented and put into a practicable shape what is now known as the Mark System, there has been no lack of a good model, if prison officers would but follow it diligently and faithfully.

IV. — THE COMPLAINTS OF PRISONERS.

Although it is not wise to take for granted all the charges that prisoners make against their keepers, we generally find that some of these

are true. Oftentimes they complain of what is, in fact, a part of their penalty, or the consequence of their own misconduct while in prison. But we may find in the following list of complaints sent us by a prisoner lately discharged from a Massachusetts House of Correction, something that needs to be corrected in the prison itself.

1. Prisoners are not properly bathed upon arrival at the prison.

2. Prisoners are not properly clothed when they arrive in the winter season, and those at the prison are not properly clothed during the winter season.

3. Prisoners are not informed as to the rules and regulations of the prison discipline.

4. Prisoners are severely punished for violating the rules of the prison, while in fact they do not know and never had an opportunity to learn any of the rules.

5. The system of punishment is unjust and arbitrary.

6. The system of labor is unjust and tends to produce discontent amongst the prisoners.

7. The rewards and punishments are unfairly bestowed and inflicted.

8. The solitary cells, or more properly the dungeons, ought to be abolished, as they are instruments of sure and certain destruction of all bodily health, and in many cases of certain, slow, but sure death. They destroy the health of the prisoner and make him forever a burden on society if he wishes to lead an honest life. They give the man confined in them time to brood over his troubles, but they also give him time to form plans to again annoy society, by developing his plans for future depredations.

9. Compelling prisoners to sleep on cold stone floors in damp cells without any covering, often for very slight or imaginary breaches of the rules.

10. The prisoner receives improper food and an insufficient quantity of it.

11. The food is often tainted, and many times in a decomposed state. "Witness." The fish hash given to the prisoners on the 17th of June, 1874, whereby every prisoner was prostrated with diarrhœa, and more than fifty compelled to receive treatment from the doctors, as will appear by the hospital record of the 18th and 19th of June.

12. Prisoners do not receive proper reading matter.

13. The chaplain does not visit the prisoners or give them advice.

14. The prisoner is not educated in any way to reform him, but is highly trained in artifice and vice.

15. The officers in many cases are immoral, and have worse characters than the prisoners they are placed over to reform.

16. The power of the officers being absolute, the prisoners are often punished with impunity for imaginary offenses.

17. The directors do not give the prisoners any chance to complain of any hardships or unjustice they may have to endure.

18. The prisoners are not allowed in the yard for any recreation, save only the 4th of July.

19. The friends of the prisoners are not allowed to send them food, fruit, or any luxuries at any time, not even on holidays.

20. The prisoners are deprived of all newspapers by the rules of the prison. Their friends are not allowed to send them any.

21. The treatment in the hospital is harsh and improper.

22. The prisoners are compelled, during about eight months of the year, to go with unwashed faces and filthy hands until dinner time of each day; they are compelled to eat their breakfast with filthy hands; the blankets are seldom washed and never dried except when washed; this happens once about every two or three years.

23. The cells are overrun with bed-bugs and other vermin.

24. Men are not provided with handkerchiefs.

25. The prison is improperly heated and lighted.

V. — PRISON ARCHITECTURE.

There is perhaps no matter of practical importance, in itself so simple, which is involved in so much misapprehension and so often mismanaged as the construction of our prisons. It is very seldom indeed that we see a well-built prison, or one that does not, in some particular, flagrantly violate the architectural rule of combining utility and simplicity of construction in such a way as to secure beauty through fitness. A beautiful, or ornamental prison, in the common acceptation of those words, ought never to exist, — for a prison is not in its nature a thing of beauty, and ought not to be. It should, however, secure the custody and the comfort of its inmates, and for that purpose should have strong and ample and well-ventilated apartments. It should never be large, — five hundred prisoners being the greatest number that ever ought to come under one warden's control, and three hundred being a still better maximum. From the report of a Committee on Prison Architecture, which studied the subject carefully in 1869, at the request of the New York Prison Association, we make these pertinent extracts: —

The cost of prison structures, of whatever class, is a point well worthy of attention, and will probably be so regarded by those on whom the responsibility of erecting them is laid. There has been, of late years, a growing, and, as we cannot but esteem it, an unfortunate disposition to lavish money in the erection of prisons, both as respects the materials used, and the degree of architectural embellishment given to them. The State prison at Joliet, Illinois, has cost over a million dollars, and that now in process of construction at Leavenworth, Kansas, is to cost a million and a half. Supposing this latter to contain one thousand cells, the cost of each will be $1,500, the interest on which, at the rate paid in the Western States, would be $150, and this would be the cost of rent for every convict confined in the prison, a sum which covers the entire cost of each convict in the Connecticut State Prison, including subsistence, clothing, officers' salaries, interest on cost of prison, etc. We would have prisons of every class substantial and tasteful structures ; but to prisons of highly ornate and costly construction we are strongly opposed, and that on the following grounds: —

1. Such buildings add not a little to the cost of crime, a burden already quite as heavy as the public find it convenient to bear.

2. The chief points to be aimed at in prison construction are security, facilities for industrial labor, adaptation to reformatory aims, ease of supervision, and a rigid economy. Costly materials and high architectural adornments are not essential to any of these ends, and are directly subversive of the last.

3. A prison with a stately and imposing exterior has a mischievous tendency to give importance to criminals and dignity to crime. We therefore trust that, as a people, we shall speedily rid ourselves of that strange vanity which leads us to make a parade of moral deformity.

4. The science of prison discipline is yet in its infancy. Able minds in Europe and America are turned, with earnestness and vigor, to the study of this problem. New principles, or new applications of old ones, are continually evolved. One improvement suggests another, and it is not in the power of the most far-seeing sagacity to forecast the results of such ceaseless and energetic efforts. One thing, however, is certain ; public opinion is gradually changed by them, and society comes at length to look with disfavor upon prisons which are incapable of admitting the improvements suggested by experience. Whenever such an era arrives, if it ever does, among us, the old prisons will not meet the new ideas, and will have to be abandoned or essentially modified.

It is, therefore, highly important that prisons should be built upon the least expensive plan consistent with their fundamental objects and the demands of good taste ; otherwise they become obstacles to improvement. — obstacles difficult to be overcome in proportion to the amount of money expended on their construction. How much harder, for example, would it be to induce Kansas to adopt a prison system which would require the abandonment of buildings that cost a million and a half of dollars, than it would Connecticut, whose outlay on her State Prison, from the start, has been less than fifty thousand dollars !

Let us not imagine, then, that our prison edifices must be so constructed as to last through all coming ages ; rather let us hope that the advance of sound principles will be so rapid, and the consequent change of public opinion so great, as to require material alterations in our methods of prison construction, to meet the demands of a higher and juster philosophy of public punishment.

. . . . . .

The Committee desire to place on record their opposition to large prisons. In our judgment, three hundred inmates are enough to form the population of a single prison, and in no case would we have the number exceed five or six hundred. Moderate-sized prisons are preferable, both on industrial and reformatory grounds ; and especially are they favorable to what the founders of the Irish prison system call *individualization* — the study of the special qualities and characteristics of each prisoner, and the adaptation of the discipline, as far as may be, to his personal peculiarities. . . . .

But it is proper for us to say that, in administering the Irish prison system, it is not, in our judgment, indispensable that buildings should be provided anew, since the essential features of the system can be applied in prisons constructed on the Auburn plan, provided that there is somewhere in the State a sufficient number of cells for the preliminary separation of newly-sentenced

convicts. The number of these being always small in proportion to the whole number under sentence, the cells required need not be very numerous.

These remarks of the Committee (Messrs. John Stanton Gould, E. C. Wines, G. J. F. Bryant, and F. B. Sanborn) relate to all prisons for one or both sexes. In regard to prisons for women, of which we have only a few in the United States (the best and most recent being at Indianapolis, for female convicts who would otherwise go to the State Prison), some special remarks may be necessary.

A PRISON FOR WOMEN.

In building a prison, the first requisite seems to be strength, since it ceases to be a prison if it is not sufficiently strong to retain securely the convicts who may be placed in it. A prison for women, it is readily admitted, does not need so much strength as would be needed for men; it would seem, then, that we may devote more of the cost to achieve that which all so much desire, viz., *the reformation* of the convicts. To this end many things are to be considered, and, first of all, health. The prison should be placed on a hill-side facing from southeast to southwest, in order that the sunlight should enter as many of the rooms as possible, thereby rendering them dry, and enabling those prisoners who do not have the benefit of the yard, to enjoy the direct rays of the sun every clear day. On such a hill-side the sun would shine fully into the yard, and thereby increase very much the productiveness of the inside gardens, which it is desirable to have, for raising vegetables and flowers by the labor of the convicts, for use in the prison and for the market.

Another advantage of a hill-side would be to afford the inmates a pleasant view of the surrounding country, which would be of great value, especially to those confined for a long term.

Of course the prison will be built with a view to providing work for the inmates, of such kinds as will enable them to earn an honest living when they go out; and if it could be of a kind that would not lead them to the cities, but could be made useful in the country, their position would be much safer, and their falling again into the paths of vice rendered much more rare.

Particular pains should be taken to teach them to do their work well, for the really skilled and expert workwoman will not only command better wages, but will much more readily obtain employment. It will also give them hope for the future, if they see that they are really learning some honest means of earning their living.

The rooms or cells should be as light and as thoroughly ventilated as possible. Each one should have a jet of gas, another of water, and a neat and proper water-closet, warming apparatus, and other needful

furniture. Inducements should be held out for the convicts to earn money by overwork, and fit up their cells so as to resemble such a room as they ought to have had in their homes. A chapel for religious services, a proper library, and many other things will of course be necessary to carry forward in real earnest the reformation of the women, who also should be aided by ladies' societies to obtain work when they leave the prison.

In concluding this preliminary report on a question of infinite detail and of great and growing importance, your Committee would call attention to the fact that the average number of convicts in the United States is now nearly double what it was ten years ago, as appears by the carefully prepared statistics of Dr. Wines, the Secretary of the National Prison Association, and that a considerable part of this increase in punished crime is due, more or less directly, to the late civil war. It was an old saying in France in the days of the Fronde, that "War makes thieves and Peace brings them to the gallows,"[1] and now that we have substituted imprisonment for the gallows, the end of a civil war naturally fills up our prisons. They are crowded, and with a class of convicts among whom are many that might be reformed. In the convict prisons of Ireland, under a system of punishment, labor, and instruction, judiciously blended and ably administered, the number of convicts has decreased from 4,000 in 1854, to less than 1,200 in 1874. We cannot hope for so great a diminution of crime in our rapidly-growing country, but we ought at least to prevent it from gaining upon the natural increase of our population, as has been the case for at least ten years past.

F. B. Sanborn,
John Ayres.

Boston, *September* 4, 1874.

THE WORK OF THE AMERICAN ASSOCIATION.

During the year now closing, from October 8, 1873, to October 14, 1874, the American Social Science Association has much enlarged its sphere of activity, and while doing this, has considered various plans for extending its usefulness. The correspondence on this subject, covering a period of several months, but beginning in October last, contains some passages which may be quoted here, as showing how the work of Social Science Associations in America is viewed by experienced persons who have long done their share of such work. First of all we may quote from a letter of the late Professor Agassiz, written in October

[1] *La guerre fait les latrons, et la paix les ameine au gibet.*

last, but a few weeks before the sudden illness which terminated his noble career. With his customary frankness and plainness of speech, he wrote thus: —

I value the success of our Association as much as anything in which I ever had a part; and yet I feel, as you do, that we are not succeeding as we should. The fault lies, I am sure, in the fact that we have no one who is truly, by life-long training, a student of Social Science, and who can direct our action. Good will is insufficient for that purpose. . . . . Every topic concerning civilization is a proper subject for communications and discussions; but I know too little of the men best qualified to present papers, and those I would recommend are probably too busy to prepare special papers. We ought forever to discard rambling addresses and discourses on topics involving human nature in its totality. The Academy of Sciences, in Paris, assumed its commanding authority from the day they excluded discussions upon the system of the Universe. We might well follow their example, — have people speak and write of what they do know, and not of what they feel or believe. . . . . I do not believe we can successfully hold more than one (at most two), general meetings each year; and we should never meet where we are not especially wanted and definitely invited. I approve *public* meetings as often as once a month.

Professor WASHBURN, who has been for many years a member of the Council, or Executive Committee of the Association, having previously held the office of Governor of Massachusetts, and other important public posts, wrote as follows: —

As a National Society, we can only make ourselves known by our public meetings. But to draw leading men and women together at such meetings, we must offer them the attraction of great names, and the assured presence of the best learning and thought of marked men, distinguished in the various departments of social, economical and hygienic science, who will contribute papers to be sent abroad, as representative productions of the Association. But I doubt if it is wise to attempt anything like this oftener than once a year, for the Association does not depend on such men and such meetings for its vital actions. Its life is to be found in the action of smaller bodies, local associations, into which the general one divides itself territorially, — where the members know each other and are content to come together and work without the stimulus and *éclat* of numbers. In these the zeal and earnestness of each member makes itself a power, as has been shown by our friend Barnard. Behind these, there must, of course, be the executive action of the officers chosen to shape and direct the policy and management of the affairs of the Association. My idea, therefore, of local meetings, is, if gentlemen upon solicitation could be induced to prepare one or more papers as often as once a month, upon topics of passing interest, meetings in Boston, New York, Philadelphia, and Providence, New Haven, and perhaps other cities, might be profitably held by district or local Associations, which more or less of the people would attend. Let there be an annual meeting in some large central city, and let there be during two or three winter months, meetings of this

kind in several large centres, and let the Secretary, in coöperation with the Executive Committee, keep up an active correspondence with leading spirits in those districts or cities, and my belief is, that much may be done in awakening sensible men and women to the claims which Social Science has upon them. . . . . As for subjects, I can only say they must be up abreast with the advance of public thought. The great difficulty is in selecting. Education, Finance, Legislation, Labor, Internal Commerce, Prison Discipline, Criminal and Civil Codes, and Taxation, are a few of the hundred topics upon which public attention may easily be awakened.

Professor PEIRCE wrote thus: —

I am of opinion something might be borrowed from the Scientific Association to enlarge the area of our influence. I would therefore have *two* meetings held annually at well-chosen points, each for about a week — say from Tuesday to Saturday, the meetings to close indeed when the material is exhausted. It seems to me it would be well to hold the next meeting in St. Louis (perhaps in December), and the following meeting in Portland, in July or August. By holding the meetings in different cities, persons in the vicinity of each meeting will be drawn into the meeting and will suddenly find themselves gifted with powers to aid the progress of thought in directions stimulated by the Society. These additions will become a permanent gain to the intellect of the nation. I think that the monthly meetings had better be reserved for subsidiary Societies, with appropriate connections with the mother Society. . . . . Let papers be sent from any one who might volunteer, (with an abstract to be laid before the Council of the meeting), and to be read, if not rejected by the Council. I would also have two or three leading papers at each meeting, from distinguished men or women, upon some subject which they might select, or which might be suggested to them, and which they might be invited to give, as has been hitherto done.

Dr. HOYT of Wisconsin, one of the Vice Presidents of the Association, after his return from Europe in December, wrote a letter on the general organization of the Association, which has been much considered, on account of the facts and views which it presented, in the name of the Western members, and those distant from the office of the Association. He said, —

The frequency of the meetings, whether of the several Departments or of the Association in general, is a matter that should be mainly left, for the present, with the Eastern members, who are located nearer to each other, and who, as a rule, have more of that leisure essential to practical effort in the work of the Association. It has been a matter of regret to me that the great distance at which I live from the central seat of the Association has hitherto denied me the privilege of attending even the general meetings. For a number of times in succession, they came at a season when it was impossible for me to absent myself from official duties here ; twice they occurred when I was in the Rocky Mountains, and twice or thrice when I was out of the country entirely. In a few instances I could have attended had I known the place and date of meeting in time to arrange plans accordingly. This leads me to

raise the inquiry whether it would not be well to have a *fixed date* for at least one general meeting, annually, and to hold such meeting at a place agreed upon several months, if not a whole year, in advance. With members at the East, whose custom it is to locate the meetings at their own doors, and who are able to attend with the loss of but a day or two, and the expenditure of a few shillings, the question of particular time and place is a matter of much less moment. But with those of us who live a thousand or more miles away, and who must sacrifice some two weeks of time, and at least a hundred dollars in money to every attendance, it is very desirable that we have a set time and place for such attendance.

Next comes the question whether it would not be well, once in a while, to hold a general meeting at some point *nearer* the *geographical centre* of the country, or at least nearer the *centre of population*, than Boston, or even Philadelphia. As yet, we have but few members located west of the Atlantic States; whereas, the Association is designed to be *American*, and should therefore have many members in all parts of the country. I have felt this for a long time, and have only deferred a discussion of the subject because of the hope, constantly entertained, of being able to attend the meetings of the Association, and because I felt that I could present my views more persuasively in person.

With all due respect to the able, self-sacrificing, and truly noble men who organized and have since directed the affairs of the Association, I feel bound to say that there is less than a just appreciation of what the West and South could do for it, if once really enlisted, and of the means requisite to their hearty coöperation. The distribution of officers is a step in the right direction, but it needs to be followed by others, if we would *nationalize* the organization, and make it a great moral power. For myself, I can truly say that I know neither East nor West, North nor South, — that the ends we seek to accomplish, in themselves purely and solely considered, hold the supreme place in my thoughts and desires. But I am not on this account blind to the fact that both sectional pride and party prejudice are positive forces, which it is often much easier to conquer by a skillful flank movement than by either a siege or a direct charge with the bayonet. "The Western Social Science Association," organized at Chicago some five years ago, originated in the desire of a number of good men to promote the advancement of Social Science, coupled with some dissatisfaction with what they considered the too narrow or sectional policy of the American Association. They said, in substance, "The so-called *American* Association is in fact a New England, or at least an Eastern, Society, and so let us form a *Western* Association." Such an organization was formed, and, for a little time, promised to accomplish much good. My desire was that it should be placed in intimate relations with the American Association, and I labored to that end, as Mr. Villard will recollect. At present, the work of the Western Social Science Association is in abeyance; but its members, with very few exceptions, if any, have not been drawn into the fold of the parent society.

At present, the only active organization working in the interest of Social Science, so far as I know, is the "Wisconsin Academy of Sciences, Arts, and Letters," which embraces a *Department* of Social Science. In planning the

organization of this prosperous institution, I took especial pains to provide for Social Science, because of its pressing importance and because I saw that there were several persons in our State competent and ready to work in this field who would rarely or never attend remote meetings of the National Association. The Department has been organized but three years and has not accomplished large results ; but its members were instrumental in procuring the foundation of our State Board of Charities, and the Department, as a whole, has produced a considerable number of original papers of much scientific and practical value. The late Bishop Armitage has been succeeded in the presidency by Dr. Steele, President of Lawrence University, who feels a deep interest in the success of the Department, and will use his best endeavors to make it one of the strongest of the five which at present constitute the Academy. The Academy has been assigned rooms in the State Hospital by authority of the Legislature, which also makes provision for the publication of our Proceedings.

President GILMAN, of California, living at a still greater distance than Dr. HOYT, took a somewhat different view; he wrote thus:—

Regarding Dr. Hoyt's paper, after talking with various persons on the matter, I am inclined to think,—

1. That the American Association, as now constituted, is substantially what is wanted. It has done good work, has acquired a good name, is managed by sensible and judicious persons. I should be sorry to see its essential characteristics very much modified just yet, or ever put in jeopardy.

2. That it is very important to organize local societies as you are now recommending. They will exert a more powerful influence in their several districts than the general society. They can give ample time and space to local questions.

3. That the difficulties of securing any system of delegates or of contributions to the general society will be increased if the attempt is made to act through the local organizations. How can California, Texas, or Minnesota, expect to send worthy delegations to the meetings in New York or Boston? How much easier to get a few subscribers to the National Association, than to get a local association (perhaps struggling to print its own pamphlets) to vote a portion of its funds to the National Association! Members of local societies, in their individual capacity will be likely, of their own accord, when they can, to attend the general meetings, subscribe to the national society, and furnish occasional papers.

4. That a system of affiliation can be organized by which local societies, whose aims and methods are clearly akin to the national society's, can be recognized as "auxiliary," "coöperative," or "affiliated." Their object, lists of officers and members, titles of printed publications or manuscript communications, etc., can be printed by the national society. Perhaps "Corresponding Associations" would be a good word. This bond of union would of course be slight, but firm enough, I think, for utility.

In short, my idea is this. The society now organized can best be managed by persons who are near to New York and Boston. The local societies throughout the country can best stand on separate foundations. Coöperation

and affiliation can readily be secured between the various local societies through the National Organization. The distribution of public documents and other pamphlets seems to me easily effected and most desirable.

The plan of local organization has always seemed to me most likely to arouse an interest in the work of the Association, and I have taken some steps to awaken an interest in forming a San Francisco Association. . . . . I inclose a note on the "California Code" (a very remarkable achievement), and a Circular which well illustrates the kind of coöperation I am constantly receiving here, and also the intelligence and public spirit of an express company.

The first inclosure referred to by President GILMAN in the above extract, is the preliminary report of Mr. JUSTICE FIELD, and his associates, in the revision of the "California Codes of Law," and is as follows: —

THE CALIFORNIA CODE.

To His Excellency Newton Booth, Governor of the State of California: —

The undersigned, heretofore requested by you "to serve as a Commission to examine the codes adopted by the last Legislature, and to prepare such amendments as seem to be necessary for the consideration of the next Legislature," respectfully report: —

That we organized our Commission on the 21st day of June, A. D. 1873, and have since that time assiduously devoted ourselves to that work.

We found the four codes — the Political Code, the Penal Code, the Civil Code, and the Code of Civil Procedure — as prepared by the Commissioners and enacted by the Legislature, perfect in their analysis, admirable in their order and arrangement, and furnishing a complete Code of Laws; the first time, we believe, that such a result has been achieved by any portion of the Anglo-Saxon or British races. It seems inexplicable that those people who boast of being the most fully imbued with the sentiment of law, have left their laws in the most confused condition, resting partly on tradition, but for the greater part scattered through thousands of volumes of books, of statutes and reports, and thus practicably inaccessible to the mass of the people. That California has been the first of this class to enact a complete code of municipal law will add not only to the prosperity of her people, but redound to her honor as a State. If the work of the Commissioners needed revision it was mostly owing to obstacles which neither their ability nor industry could overcome.

We found that the codes needed revision more for the purpose of harmonizing their respective provisions, than for any other. This want of complete harmony was a result inevitable to the short period of time which the Commissioners had for the preparation of their work. At the same time it was found that many definitions taken from the proposed codes of New York, which had never been enacted there, did not stand the test of examination; and that many legislative provisions would change our settled law of twenty-two years' standing, and not for the better. We have proposed to change many of these provisions so as to bring them into harmony with the law as

heretofore existing and construed by our courts for nearly a quarter of a century. At the same time our attention has been called to defects which, within the last one or two years, have for the first time made themselves apparent in laws which have stood on our statute book for many years, and which we have endeavored to correct, making as little change as possible in the general frame of the statute.

We addressed a printed circular by mail to the Judges of the Supreme Court, to the District Judges, the County and Probate Judges, and the Judges of other courts of record, to the executive officers of the State, the District Attorneys, County Clerks, Recorders, Auditors, Treasurers, Tax Collectors, and Sheriffs; to the members of the bar, and to the leading merchants, bankers, manufacturers, agriculturists, miners, and other persons representing the producing and material interests of the State, soliciting their suggestions and personal conference with them at our rooms. This call met with a very large response, and we received, both in writing and in person, from the persons thus addressed, suggestions of the greatest value. When we had prepared the drafts of our proposed amendments to the various codes, we issued them in a printed form to the same classes of persons, again soliciting suggestions and amendments. This call was also largely responded to, and we have good reason to believe that criticisms upon our work have for the greater part been frankly and ingenuously communicated to us. The codifiers have also greatly assisted us with their counsels and experience.

We have completed our work upon the Code of Civil Procedure, the Penal Code, and the Civil Code, and herewith transmit the result in the form of three proposed legislative acts for the amendment of those three codes respectively. A glance at these proposed amendments will show their scope and extent; but we may be permitted to point out some of the most important objects which we have hoped might be attained by means of our work.

In the code of Civil Procedure we have suggested several important amendments; one respecting the jurisdiction of the courts, especially of the Supreme Court upon appeal, which, if adopted by the Legislature, and approved by the Supreme Court, will, we think, give relief upon appeal in a large class of cases affecting property, where that remedy is not now allowed. We have endeavored to render the laws for selecting jurors more efficient; and to discard the rule which often disqualified the most intelligent persons drawn as jurors, because they had expressed an opinion upon merely outside rumors. We have proposed to dispense with the verification of the pleadings in those cases where, if required, there is always an oath on one side and an opposing oath on the other, leading to great corruption and demoralization. We have endeavored to simplify and expedite the procedure on moving for new trials; to dispense with special findings by the courts, in cases where they are not needed; to render the rules of evidence clearer and more precise; to purge definitions from all redundancy; to restore to the clauses regulating redemption from sales under judgment, some material provisions which had been left out by accident, and to remedy some defects in them which have only lately been discovered; and to make the provisions regulating actions against steamers and boats, for the first time, constitutional under the decisions of the Supreme Courts of California and of the United States.

In the Penal Code we have devoted ourselves in a large degree to the same kind of work, but not to the same extent. A great amendment which we have proposed relates to the formation of trial juries, to be composed of men of intelligence. We have endeavored to simplify pleadings in criminal cases — to render a conviction for embezzlement possible — and have proposed that when an acquittal shall be had on the ground of insanity, that the verdict shall state that fact, and that an inquest may be then had as to the insanity of the defendant, and if he be found still insane that he be sent to the Insane Asylum.

Our labors upon the Civil Code have been more extensive than upon the others. While we have thought that the law of marriage should be simple and entirely free from dangerous technicalities, we are of opinion that the least evidence of such a contract which can be permitted is a public declaration of the parties.

We found the existing laws respecting children under age exceedingly defective, although they were only a compilation of laws on the statute book, which had been passed from time to time. A girl of fifteen may now make a marriage contract or a marriage, which renders her of full age, emancipates her from guardianship and enables her — if persuaded to do so by designing persons — to dispose of all her property and impoverish herself for life. All infants, of whatever age, can by the existing law put all of their property out of their control and that of their guardians, and cannot recover it without restoring the consideration received, which may have already been dissipated or stolen. In other cases infants are enabled for special purposes to make contracts, which may strip them of all their property and leave them in a state of insolvency. We have endeavored to make the law of corporations more simple and certain. We have carefully revised the laws relating to shipping and insurance. We have proposed amendments to the laws relating to common carriers, especially to express and telegraph companies. We have revised the laws relating to frauds and conveyances, and the recording of conveyances and notices, so as to bring them up to the range of decision and the advanced business methods of the age. We have, after much consultation with Judges and the most experienced members of the legal profession, prepared a series of amendments to the Civil Code and the Code of Civil Procedure on the subject of homesteads, which, if adopted, will, we are persuaded, carry out the beneficent objects of that institution more effectually than has heretofore been done. We have proposed to strike out the whole chapter on Powers, as wholly unsuited both to the wants and habits of the people, retaining one or two sections by amendment of other portions of the Civil Code, in places where the provisions of those sections properly belong.

The Codifiers most wisely determined that each code should be as complete as possible in itself, without the necessity of being supplemented by the consultation of any other of the codes. The exceptions to this practice are mostly, if not wholly, confined to cases where the Code of Civil Procedure is necessarily referred to for the mode of executing some provision of law. From this has resulted the existence of substantially the same definitions and provisions in two, and sometimes in three, of the codes, but oftentimes not expressed in precisely the same terms. In all these cases we have endeavored to select the best form of expression, and to render the language uniform in all the codes.

While we have endeavored to render more complete and harmonious those codes which the Legislature have approved as belonging to the settled policy of the State, the same motive has deterred us from proposing any amendments to the Sunday laws, or to the laws relating to railroads. Any changes in those laws would import a change of public policy, and recommendations of that kind we did not regard as within the scope of our work.

Our report upon the Political Code will be submitted hereafter.

(Signed) STEPHEN J. FIELD,
JACKSON TEMPLE,
JOHN W. DWINELLE.

SAN FRANCISCO, *October* 13, 1873.

President GILMAN's second inclosure comprised a letter addressed by him to the Superintendent of Wells and Fargo's Express company in California, and the letter of instructions in regard thereto, issued to the hundreds of agents and employés of that company, — both being printed in the form of a circular, and sent out to all parts of California. In consequence of the generous and active coöperation by the express company, the University of California has since received and is now receiving large collections for its cabinets. We copy the two letters: —

PRESIDENT GILMAN'S LETTER.

UNIVERSITY OF CALIFORNIA.

BERKELEY, OAKLAND, *December* 1, 1873.

MR. J. J. VALENTINE, *Gen'l Supt. W., F., & Co.'s Express, San Francisco.*

DEAR SIR: — The University of California has only recently entered upon its new site at Berkeley, taking possession of two large and commodious buildings provided by the State. Here are spacious and handsome rooms for museums and cabinets. Can you not through your widely extended agencies help us to fill them with such objects as will illustrate the resources, the natural productions, and the Indian history of this country? We shall be especially glad to receive such specimens as these: —

1. Minerals, ores, fossils, and metallurgical products.
2. Specimens of the native plants, of the woods, timber, and peculiar vegetation of any region.
3. Specimens of rare insects, fishes, shells, birds, and animals.
4. Indian antiquities, skulls, weapons, stone implements, dresses, and other illustrations of aboriginal life.
5. Books, pamphlets, photographs, and maps.

Full directions will be given to any one interested in making collections, and every object received will be gratefully acknowledged to the donor, if the source of the gift is known, and will be accordingly entered on the University Records. Specimens should be distinctly labeled, especially as to *the place* from which they were originally taken.

The University of California belongs to the State, and is free from sectarian character. It is absolutely free in tuition, and open to students — young men

and women — from any state or country ; it is devoted to the higher education, literary and scientific, and especially interested in the Pacific Coast.

Your kind coöperation will be most serviceable, and will be gratefully appreciated.

Yours, very respectfully,

D. C. GILMAN,
President of the University of California.

MR. VALENTINE'S CIRCULAR OF INSTRUCTIONS.

WELLS, FARGO, & CO.'S EXPRESS.

GENERAL SUPERINTENDENT'S OFFICE, SAN FRANCISCO, *December* 5, 1873.

To Agents and Employés of WELLS, FARGO, & COMPANY.

GENTLEMEN : — The accompanying letter from Prof. D. C. Gilman, President of University of California, explains itself. There is probably not one of the six hundred places at which this Company is represented, which will not at one time or another afford opportunities for securing desirable articles for contribution at no expense or trouble to an Agent, Clerk, or Messenger, but which will undoubtedly be invested with much interest, and possibly prove of great value in a collection such as the University of California should, and undoubtedly will, secure sooner or later.

In bespeaking and hoping for your sympathy with and interest and coöperation in accomplishing the object set forth, you are not obligated officially or personally to subject yourselves to inconvenience or discomfort in any particular; but we have such a favorable opinion of the intelligence of the Company's employés as to believe there will be a very general interest manifested and coöperation vouchsafed.

It is not expected that a general or important collection will be secured immediately, nor will a spasmodic effort effect much. What is most desirable will be to post this and the letter referred to in a conspicuous place in your office, and from time to time secure such offerings as will undoubtedly be tendered by all classes of men : for there is no walk in life in which knowledge — which is power — has not earnest votaries.

> "By knowledge we do learn ourselves to know,
> And what to man and what to God we owe."

Whenever any article is obtained, pack it securely, and address —

UNIVERSITY OF CALIFORNIA,
Berkeley (Oakland), Cal.,

Way-billing it by express to Oakland, *free*, inclosing by letter to the University any information relating to the thing sent.

Very respectfully yours,

JNO. J. VALENTINE,
General Superintendent.

THE MINNESOTA BOARD OF HEALTH.

A Paper by Dr. Charles N. Hewitt, Secretary of the Board.

[Omitted in Report of Health Conference, p. 250.]

The Minnesota State Board of Health and Vital Statistics was provided for by the following act of the Legislature, approved March 4, 1872: —

Be it enacted by the Legislature of the State of Minnesota: —

Section 1. The governor shall appoint seven physicians, one from the city of St. Paul and the other six from different sections of the State, who shall constitute the State Board of Health and Vital Statistics. The physicians so appointed shall hold their offices for four years, and until their successors are appointed, and all vacancies in the Board shall be filled by the Governor.

Sec. 2. The State Board of Health shall place themselves in communication with the local boards of health, the hospitals, asylums, and public institutions throughout the State, and shall take cognizance of the interests of health and life among the citizens generally. They shall make sanitary investigations and inquiries respecting the causes of disease, especially of epidemics, the source of mortality and the effects of localities, employments, conditions, and circumstances on the public health; and they shall gather such information in respect to these matters as they may deem proper for diffusion among the people. They shall devise some scheme whereby medical and vital statistics of sanitary value may be obtained, and act as an advisory Board to the State in all hygienic and medical matters, especially such as relate to the location, construction, sewerage, and administration of prisons, hospitals, asylums, and other public institutions. They shall at each annual session of the Legislature make a report of their doings, investigations, and discoveries, with such suggestions as to legislative action as they may deem proper. They shall also have charge of all matters pertaining to quarantine, and authority to enact and enforce such measures as may be necessary to the public health.

Sec. 3. The board shall hold regular meetings, at least once every three months, one of which meetings shall be held at the Capitol during the session of the Legislature. Their first meeting shall be held at the Capitol within ten days after their appointment shall have been made, and three members shall always constitute a quorum for business. They shall elect, from their own number, a President and permanent Secretary; the latter shall be their executive officer. No member except the Secretary shall receive any compensation, but the actual expenses of any and all the members while engaged in the duties of the Board shall be allowed and paid to the extent authorized by this act.

Sec. 4. The Secretary shall perform and superintend the work prescribed in this act and shall perform such other duties as the Board may require. He shall furnish to the Legislature when in session information cognate to this act as from time to time they may deem necessary.

SEC. 5.[1] The Secretary of the Board shall receive from the treasury, in quarterly payments, an annual salary of two hundred dollars, and his necessary and actual travelling expenses incurred in the performance of official duties, after they have been audited by the Board and approved by the Governor, and all other necessary expenses arising in his office shall be paid out of the treasury in the same manner as those of the different departments of State Government; Provided, that the expenses of said Board shall not exceed the sum of five hundred dollars per annum.

The Governor commissioned the following gentlemen members of the Board: D. W. Hand, M. D., St. Paul; A. B. Stuart, M. D., Winona; N. B. Hill, M. D., Minneapolis; A. W. Daniels, M. D., St. Peter; Charles N. Hewitt, M. D., Red Wing; V. Smith, M. D., Duluth; G. D. Winch, M. D., Blue Earth City.

The Board organized by the election of Dr. Stuart, *President*, and Dr. Hewitt, *Secretary*.

By order of the Board, the Secretary has edited the "Vital Statistics of the State" for the Commissioner of Statistics, whose duty it is to collect and publish them.

Recognizing the fact that permanent progress in their work depended upon a better popular knowledge of Hygiene, the Board urged a better provision for this study upon the Regents of the State University, the Normal School Board, County School Superintendents, and local School Boards. As a result of this action, a Department of Instruction in Public Health has been organized at the State University, of which the Secretary of this Board is Professor. The instruction is by textbook with certain of the classes, and by a course of lectures open to all. One such course has already been given, and a definite knowledge of Hygiene is now required for a degree. The effort is now being made to establish, in connection with this Department, a Museum of Sanitary Science, to include models of heating and ventilating apparatus; of apparatus for the storage, conduct, and purification of water; samples of the various preparations of food, their impurities, and adulterations, etc. For this collection, contributions are requested to be sent to the Secretary of the Board. They will be marked with the donor's name, put on exhibition in the Museum, and be used in illustration of the subject to which they relate. Many of the local school boards have given Hygiene a recognized place in the scheme of studies required, and teachers are becoming more familiar with it through the efforts of the Board in Teachers' Institutes and with individuals.

The attention of the Legislature was called, in 1873, to the necessity of an Asylum for Inebriates, and an Act was passed laying a tax of ten

[1] Amended in 1874, making the salary of the Secretary five hundred dollars, and the whole appropriation fifteen hundred dollars.

dollars on liquor dealers for an Inebriate Asylum fund. By order of the Governor the Secretary of this Board visited the American Inebriate Asylums, and presented a report on them which was printed in the Transactions of the Board for 1874. Eleven thousand dollars are in the treasury of the State to the credit of the fund, but the constitutionality of the law is in question before the Supreme Court, and until the decision is rendered the collection of the tax is suspended.

As provided in the law of its organization, the Board have begun and continue a careful inspection of the public institutions, their construction and management, so far as relates to the health of the inmates. Their investigations have already resulted in great good, and will be of still greater benefit in the future. The Board are also examining the construction of school buildings, often at the request of school boards. Committees of the Board are at present preparing papers on the following subjects for the forthcoming report: —

The "Ventilation of Public and Private Buildings." Dr. D. W. Hand, St. Paul, *Chairman.*

The "Influence of Climate and Residence in Minnesota on Diseases of the Air-passages." Dr. Franklin Staples, Winona, *Chairman.*

The "Meteorology of Minnesota, and the Existence and Influence of Ozone." Dr. A. E. Senkler, St. Cloud, *Chairman.*

The "Food of Our Population, including Impurities and Adulterations." Dr. Charles N. Hewitt, Red Wing, *Chairman.*

Active local Health Boards are in operation at St. Paul, Minneapolis, and other towns of the State, and in correspondence with the State Board. This Board is more and more frequently consulted on sanitary subjects by corporations and individuals, and is doing all in its power to stimulate and satisfy interest and inquiry in this direction. It consists, at present, of the members named on page 216.

Red Wing, Minnesota, *September*, 1874.

In order to indicate to our countrymen the kind and amount of work which is undertaken in Great Britain by the National Association for the Promotion of Social Science, after which our own was modeled, we copy below a brief report of the annual business meeting of the members of that Association, held in London, July 9, 1873. It may be observed in passing, that the Transactions at the Norwich Congress here so slightly touched upon, fill a volume of more than seven hundred pages. The British Association has been in existence since 1857, or twice as long as our own. When we have attained such an age, may we have as good a record to show!

ANNUAL BUSINESS MEETING OF MEMBERS.

G. W. Hastings, Esq., in the Chair.

The Annual Business Meeting of Members was held in London on Thursday, July 9th, to receive a report from the Council on the Financial and other business of the Association, and to elect the Officers and Standing Committees for the ensuing year. The following is the report of the Council to the Meeting: —

"The Council have to report that the Annual Congress of the Association for 1873 was held at Norwich, from the 1st to the 8th of October last, under the presidency of Lord Houghton, and the Session of 1873–74, was opened on the 17th of November, by a paper by Mr. Thomas Webster, Q. C., F. R. S., on the Law of International Copyright. The discussions at the Congress and the Sessional Meetings were very well attended, and the subjects interesting and important.

Since the last Annual Meeting, seventeen Sessional Meetings have been held, at which the following Papers were read and discussed: —

November 17th, 1873. — The Law of Copyright, as Affecting British Authors in the Colonies, United States, and Foreign Countries. By Thomas Webster, Q. C., F. R. S.

December 1st. — On the Mode of Selection of Beneficiaries to Charitable Institutions. By Henry Carr.

January 12th, 1874. — Local Taxation and Local Government. By Frederic Hill.

January 26th. — The Law of Conspiracy and its Modern Application. By Rupert Kettle.

February 2d. — The Government of London. By Arthur Arnold.

February 9th. — Rules of Practice and Procedure to be Framed under the Judicature Act, 1873. By G. M. Dowdeswell, Q. C.

February 23d. — School Hygiene. By Dr. Richard Liebreich.

March 2d. — Hospitals, Cottage Hospitals, and Ventilation. By Dr. Shrimpton.

March 16th. — The Policy of Granting Letters Patent for Inventions, with Observations on the Working of the English Law. By John Coryton.

March 30th. — On the Abolition of Private Slaughter-houses in Towns, and on Future Legislation for Noxious Trades. By William Hardwicke, M. D.

April 20th. — On Out-door Relief. By William Vallance.

April 27th. — On Compulsion and other Means of carrying Primary Education to all Classes. By Rowland Hamilton.

May 4th. — On the Land Transfer Bills. By George Sweet.

May 18th. — The Amelioration of the Present Position of Midwives. By J. H. Aveling, M. D.

June 1st. — On the Abolition of Imprisonment for Debt. By Professor Leone Levi, F. S. S.

In addition to the above, the Third Annual Conference of Chairmen and Vice-chairmen of Boards of Guardians was held on the 16th of December, under the presidency of S. S. Dickinson, Esq., M. P., when the following subjects were considered: —

1. The Systematization and Circulation of the Reports of Conferences. By T. B. Ll. Baker.

2. The best Means by which Guardians can utilize Voluntary Efforts. By Colonel Gardiner.

3. On Contagious Ophthalmia, as influenced by the Arrangements of Workhouses and Pauper Schools. By R. Brudenell Carter, F. R. C. S., Ophthalmic Surgeon to St. George's Hospital.

4. The Duties of Guardians in relation to the Public Health Act. By Sir Baldwyn Leighton, Bart.

The success of the two previous Conferences, held under the auspices of the Association, fully justified the Council in calling together again the Representatives of Boards of Guardians from all parts, so that those who have specially devoted their attention to these subjects might compare their opinions and experience.

International Copyright. — Deputations from the Council have waited on the Earl of Carnarvon at the Colonial Office, and the Earl of Derby at the Foreign Office, to urge upon their lordships the necessity of providing better securities for the property of British subjects in intellectual labor in foreign countries than at present exists. The subject was brought before the Association in a paper by Mr. Webster, Q. C., early in the Session, and the reasons assigned for an amendment of the law were the following: That under the "Imperial Copyright Act, 1842," any person, whether British subject or alien, on first publishing a book in the United Kingdom acquires a copyright throughout the British Dominions. That a British subject publishing for the first time in Canada, or in any other part of the British Dominions, obtains no copyright in the United Kingdom, nor in any other part of the British Dominions, except what the *lex loci* may give him within its limits. That the "Act, 1842," prohibits the importation of reprints of British Copyright books into the colonies. That the "Colonial Copyright Act, 1847," provides for the suspension of the prohibition against importation to the colonies of reprints of books in which there is British Copyright, in cases in which the colony makes due provision for the rights of the author, such provision being approved by her majesty in Council. That the "Act, 1847,"

has utterly failed in its object, so far as relates to the protection of authors, and that such statute ought to be repealed and fresh provision made for the protection of the copyright of British authors in the colonies.

Land Transfer. — The Standing Committee of the Municipal Law Section have considered the expediency of providing for local registration of title under the Transfer of Land Bill, and they have presented a petition to the House of Commons in favor of the establishment in different parts of the country of offices for the economic and expeditious dispatch of business, and otherwise for the convenience of persons desirous of registering titles.

Prison Discipline. — A deputation waited on the Secretary of State for the Home Department to ask for the appointment of a Royal Commission to inquire into the management and discipline of County and Borough Prisons in Great Britain. The application was based upon three grounds, namely, the want of uniformity in discipline and management, the smallness of the average daily number of prisoners in many of the gaols, which rendered it impossible to conduct any system efficiently, and the third, the question of how far industrial labor in prisons may be extended, and whether it may not partly be substituted for penal labor.

Female Education. — A conference on Female Education was held in connection with the Education Department, at the Norwich Congress, at which papers were read on "The Organization of Schools and Elementary Teaching."

The Elementary Education Acts. — The Standing Committee of the Education Department have had their attention drawn to the working of the Elementary Acts in towns or rural districts. Many active members of School Boards are desirous of comparing their experiences with others similarly occupied in different parts of the country, especially as to the working of the permissive powers given under the Act of 1870. All who are practically engaged in diffusing instruction among the masses must feel the necessity of gaining the support of an intelligent local opinion, without which legislation, especially on educational subjects, must become little better than a dead letter. The Council, therefore, is induced to offer its services as a means of intercommunication between all who are concerned in the work of Primary Education, and in accordance with a resolution submitted to them, have appointed a Special Committee for the purpose of comparing experience as to the working of the Elementary Education and other Acts.

The Sanitary Laws. — The Joint Committee of this Association and the British Medical Association presented their annual Report to the Norwich Congress. Since the passing of "The Public Health Act, 1872," the Committee have contented themselves with watching its working. This has been very uncertain, presenting totally different features in different parts of the country, making it a difficult matter to ascertain the present, and still more to forecast the future, condition of sanitary organization. The Committee report that the past session has shown that the President of the Local Government Board was at last becoming aware of the reasonableness of the views so persistently urged upon him by the Committee — that somebody of higher authority, and presiding over an area of greater extent than that of a Town Council or Board of Guardians, was required to control and direct local action, and that a supervision and correction of boundaries of districts was an

essential to the initiation and completion of sanitary measures. The great question of the best means for the ultimate disposal of sewage has remained in abeyance during the past year. Little or nothing has been done; and the difficulties attending the best mode to be adopted, and the means to be provided for acquiring the necessary land for irrigation, filtration, or other means of deodorization and defecation, remain untouched and unsolved.

Analyses of Air and Water. — A resolution was passed in the Health Department at the Norwich Congress, recommending the Council to call the attention of the Government to the advantage of procuring and publishing periodically an analysis of the air and drinking-water of large towns having a high density of population. The Council accordingly memorialized the Local Government Board, urging that the knowledge of ascertaining the relative constituents of air and water would assist very materially in detecting disease, and thereby suggesting what may be needful for the protection of public health, and for the prevention of the spread of contagious diseases. And that it would be desirable and advantageous to ascertain and publish periodically analyses of the air and of the drinking-water in towns, for the safety of the public health.

Loss of Life at Sea. — A deputation from the Council of the Association waited upon the President of the Board of Trade to urge upon him the necessity of adopting some system of medical registration and legal inquiry into the cause of deaths on the high seas, with a view to diminish the present high rate of mortality in the mercantile marine. The mortality in the mercantile marine had been brought before the Association on several occasions by Commander Dawson, R. N., who had paid much attention to the subject, and since then it had been considered by the Standing Committee of the Health Department, who recommended that some representation should be made to the Government to secure, if possible, medical registration and legal inquiry by a coroner into the cause of deaths upon the high seas, and the prosecution of persons suspected of criminal conduct.

Abolition of Private Slaughter-houses. — In 1844, an Act was passed, commonly known as the "Metropolis Building Act," which provided for the carrying on of unwholesome businesses at greater and safer distances from other buildings used for habitation. For carrying out this object, it was enacted that for the purpose of making provision concerning businesses offensive or noxious, that with regard to the business of a slaughter of cattle, so far as relates to the erection of buildings, it should not be lawful for any person to establish or newly carry on any such business, either in any building or vault, or in the open air, at a less distance than forty feet from any public way, or than fifty feet from any other such building of the first or dwelling-house class, and that if any such business should be carried on in any situation within such distances, then, from the expiration of the period of thirty years next after the passing of the Act, it should cease to be lawful to continue to carry on such business in such situation. That Act will expire next month, and the Standing Committee of the Health Department have had under their consideration the substitution of some plan whereby the erection of new private slaughter-houses may be prevented. The Committee, therefore, recommended to the notice of the Government that slaughter-houses or

abattoirs should be erected in open spaces, in convenient suburban localities only, where every facility exists for keeping cattle clean, in well-kept pens, duly provided with pure water, fresh air, shade in hot and shelter in cold weather; where they are less exposed to violence and brutality, and where the transport of blood, offal, hides, and tallow can be effected without nuisance or complaint of neighbors. That provision should be made for the inspection, by competent judges, of the cattle before they are killed, or of the meat supply, either in carcass or otherwise, to the public markets, or to retail dealers; and, lastly, that as no provision has at present been made for the erection of abattoirs or public slaughter-houses to supply the place and deficiency of private slaughter-houses, that an Act of Parliament be introduced to grant a license for a short period of time, to afford an opportunity to local authorities and others to take the necessary steps to provide a substitute after the manner suggested above.

Registration of Births and Deaths. — A joint deputation of this Association and the Statistical Society waited upon the President of the Local Government Board, to urge on him certain amendments to the Bill then before Parliament to amend the law relating to registration of births and deaths in England. The statement put in by the Standing Committee of the Health Department was to the effect that the object of the Registration Acts is to record accurately certain particulars respecting every birth and death in the country, and to keep up a perpetual register of the people. The Committee were of opinion that the Bill was defective in the following respects: (1.) The time allowed to elapse before information is given. (2.) The introduction by the Bill of no proper safeguard against the burial of live-born children for still-born; and (3.) The diminution of the effect of the provisions of the Public Health Act of 1872 for statistical purposes, by allowing so long time for registration. These objects were pressed on the attention of Mr. Sclater-Booth, who promised to give them his best consideration.

Sanitary and Educational Exhibition. — An Exhibition of Sanitary and Educational Appliances, similar to that held at Leeds in 1871, was held in connection with the Congress at Norwich, and was highly successful. The exhibition was opened by the High-sheriff of Norwich with an address *apropos* of the occasion, and short lectures were delivered on sanitary subjects by gentlemen well qualified to handle the subjects they took in hand. The Council have sanctioned the holding of another Exhibition for the display of Sanitary and Educational appliances during the meeting of the ensuing Congress. The arrangements, as before, will be under the superintendence of a Managing Committee. The Burnbank Drill Hall at Glasgow has been secured for the purpose.

Labor and Capital. — A meeting of the General Committee on Labor and Capital was held, to receive a report from the Executive Committee recommending the suspension of further operations in consequence of the want of funds to carry them on. The Committee remarked that, though they had nothing fresh to report, they had witnessed, with great pleasure, the continued exertions, in the settlement of trade disputes, of one of their members, Mr. Rupert Kettle, in his capacity of arbitrator between employers and employed; not to mention the valuable paper on the "Law of Conspiracy and

its Modern Application," which he read at a meeting of the Jurisprudence Department. Although not exclusively relating to questions of labor and capital, much information and instruction on this subject were afforded by other members, — Mr. Thomas Brassey, M. P., in his address as President of the Department of Economy and Trade, at the Norwich Congress; Mr. Walter Morrison, Mr. Mundella, M. P., Mr. Jeremiah Head, and the learned Chairman of the meeting, Mr. Thomas Hughes, Q. C.

Local Taxation. — The subject of Local Taxation and Government has been under the consideration of a Committee, who have reported that the questions involved affect many various and complicated interests. Different propositions regarding them were discussed at much length, and from many points of view. The conclusions arrived at by the Committee, as far as they are embraced in the definite resolutions, must be regarded in some degree as recommendations of a tentative character, which actual experience only can modify into any definite rules of action.

Committees. — In addition to the before-mentioned subjects, the Committees have had under their consideration the Local Government of the Metropolis, the "Juries' Bill," and others which have not been proceeded with in Parliament.

Foreign Corresponding Member. — The Council have elected Mr. Edwin Pears, of Constantinople, formerly General Secretary of the Association, a Foreign Corresponding Member of the Association.

Annual Accounts. — A statement of the accounts is appended herewith, showing receipts of £1,776, and disbursements and liabilities of about £1,700. At the end of the financial year the only liability was 175*l.* 13*s.* 6*d.* for printing, against which there is a balance in hand of 255*l.* 14*s.* 5*d.*

The Council have to record with regret the death of several members of the Association, among whom may be mentioned, Thomas Baring, M. P.; Sir W. H. Bodkin, Q. C.; the Marquis of Clanricarde; Lord Colonsay; Donald Dalrymple, M. P.; William Dornbusch; John Lawson, C. E.; J. G. Marshall, of Leeds; W. H. Moss, of Hull; the Rev. Canon Richson, of Manchester; Sir David Saloman, Bart., M. P.; Joshua Satterfield, of Manchester; H. L. Tennant, of Greenock.

Officers and Standing Committees. — The Council recommend the election of the following Officers and Standing Committees of the Association for the ensuing year: —

President. — The Right Hon. the Earl of Rosebery.

Permanent Vice-president — The Right Hon. Lord Houghton.

President of Council. — G. W. Hastings.

Presidents of Departments. — I. Jurisprudence and Amendment of the Law. — The Right Hon. Lord Moncrieff (Lord Justice Clerk of Scotland). II. Education. — The Right Hon. Lord Napier and Ettrick, K. T. III. Health. — The Right Hon. Lyon Playfair, C. B., F. R. S., M. P. IV. Economy and Trade. — Sir George Campbell, K. C. S. I.

Chairman of the Repression of Crime Section. — Frederic Hill.

General Secretary. — C. W. Ryalls, LL. D.

Foreign Secretary. — John Westlake, Q. C.

Treasurer. — W. Strickland Cookson.

Auditors. — Francis Fuller ; A. V. Newton.

Secretaries of Departments. — I. JURISPRUDENCE AND AMENDMENT OF THE LAW. — *Section B.* — Municipal Law. — H. N. Mozley. *Section C.* — Repression of Crime. — Thomas W. C. Jones. II. EDUCATION. — Rev. Brooke Lambert ; Rowland Hamilton. III. HEALTH. — William Clode ; William Hardwicke, M. D. IV. ECONOMY AND TRADE. — F. G. P. Neison ; E. L. O'Malley ; Rev. S. A. Steinthal.

The following is the Announcement of the Social Science Congress at Glasgow which is soon to assemble: —

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE, WITH WHICH IS INCORPORATED THE SOCIETY FOR PROMOTING THE AMENDMENT OF THE LAW.

The Eighteenth Annual Congress will be held at Glasgow, from 30th September to 7th October, 1874.

President, the Honorable the Earl of Rosebery.

President of the Council, George Woodyatt Hastings, Esq.

General Secretary, C. W. Ryalls, Esq., LL. D.

Treasurer, W. Strickland Cookson, Esq.

Foreign Secretary, John Westlake, Esq., Q. C.

Assistant Secretary, Mr. James Robinson.

Chairman of the Local Executive Committee, Sir James Watson, Lord Provost of Glasgow.

Treasurers, Alexander Moore, Esq., C. A.; Thomas Balmain, Esq., British Linen Bank.

Secretaries, Mark Bannatyne, Esq., Andrew Fergus, Esq., M. D.; Professor Gairdner, M. D.; Andrew S. M'Clelland, Esq., C. A.

Acting Secretary, Mr. Henry Johnson, 147 West Regent Street.

General Office, 1 Adam Street, Adelphi, London, W. C.

Local Offices, 147 West Regent Street, Glasgow.

OBJECTS OF THE ASSOCIATION.

The Association is established to aid the development of Social Science, to spread a knowledge of the Principles of Jurisprudence, and to guide the public mind to the best practical means of promoting the Advancement of Education, the Prevention and Repression of Crime, the Reformation of Criminals, the adoption of Sanitary Regulations, and the diffusion of sound principles on all questions of Political and Social Economy. The Association aims to bring together the various societies and individuals who are engaged or interested in furthering these objects; and, without trenching upon independent exertions, seeks to elicit by discussion the real elements of truth, to clear up doubts, to harmonize discordant opinions, and to afford a common ground for the interchange of trustworthy information on the great social problems of the day.

DEPARTMENTS.

I. — JURISPRUDENCE AND AMENDMENT OF THE LAW.

President, the Right Honorable Lord Moncreiff, Lord Justice-clerk of Scotland.

Vice-Presidents, the Right Honorable Edward S. Gordon, M. P., Lord Advocate of Scotland; the Honorable Lord Gilford, Professor Berry, Joseph Brown, Esq., Q. C., Charles Clark, Esq., Q. C., W. T. S. Daniel, Esq., Q. C., Sheriff Dickson, Esq., LL. D., Joseph Dodds, Esq., M. P., W. Neilson Hancock, Esq., LL. D., D. C. Heron, Esq., Q. C., A. E. Miller, Esq., Q. C., Adam Paterson, Esq., LL. D., Mr. Serjeant Pulling, Professor Roberton, LL. D., Sir Travers Twiss, Q. C., D. C. L., F. R. S., Alfred Waddilove, Esq., D. C. L., Thomas Webster, Esq., Q. C., F. R. S.

In this Department are discussed the Science of Jurisprudence and the Amendment of the Law; including the principles of Law and Legislation, Comparative Jurisprudence, International Law and Municipal Civil Law, and Criminal Law, together with the treatment of Criminals, and questions connected with Industrial and Reformatory Schools.

International and Municipal Law Section.

Special Questions for Discussion.

1. — Is it absolutely desirable that the verdicts of juries should be unanimous ?

2. — Should the testimony of any and what persons, at present excluded witnesses, be admissible as evidence in courts of law ?

3. — How far may courts of arbitration be resorted to as a means of settling the disputes of nations ?

Secretary, H. N. Mozley, Esq.

Local Secretaries, D. D. Balfour, Esq., Colin D. Donald, Esq., Jun., Arthur Forbes, Esq.

Repression of Crime Section.

Chairman.

Vice Presidents, Lord Ardmillan, the Honorable Lord Craighill, T. B. Ll. Baker, Esq., Sheriff Barclay, of Perth, John Hill Burton, Esq., LL. D., Rutherford Clark, Esq., Dean of Faculty of Advocates, Mr. Serjeant Cox, Judge of Middlesex Sessions, R. T. Middleton, Esq., H. B. Sheridan, Esq., M. P., Mark J. Stewart, Esq., M. P.

Special Questions for Discussion.

1. — How far is it desirable that the Industrial Schools Act should be extended to day industrial feeding schools ?

2. — How far should previous convictions be taken into account in sentencing criminals ?

3. — Is it desirable to extend sentences of police supervision to other cases than those already provided for ?

Secretary, Thomas W. C. Jones, Esq.

Local Secretaries, Michael Connal, Esq., J. B. Kidston, Esq., E. S. Macharg, Esq.

II. — EDUCATION.

President, the Right Honorable Lord Napier and Ettrick, K. T.

Vice Presidents, Edwin Chadwick, Esq., C. B., E. B. Eastwick, Esq., C. B., F. R. S., Principal Sir Alexander Grant, Bart., LL. D., James McClelland, Esq., John Ramsey, Esq., M. P., Robert Reid, Esq., M. P., Rev. J. H. Rigg, D. D., Sir William Stirling-Maxwell, Bart., M. P., Thomas Sopwith, Esq., F. R. S.

This Department deals with the various questions relating to Education, whether of the upper, middle, or lower classes of society.

Special Questions for Discussion.

1. — What is the best mode of extending the benefits of academical endowment in England and Scotland respectively ?

2. — In what way and at what stage can technical instruction be best introduced into our national system of education ?

3. — How far can the children of the wage earning classes be best brought under elementary instruction by means of the factory, workshops and other acts and by the action of school boards ?

Secretaries, Rowland Hamilton, Esq., Rev. Brooke Lambert.

Local Secretaries, James Bell, Esq., W. F. Collier, Esq., LL. D., John Robertson, Esq.

III. — HEALTH.

President, the Right Honorable Lyon Playfair, D. C. L., C. B., M. P.

Vice Presidents, the Honorable the Lord Provost of Glasgow, H. W. Acland, Esq., M. D., F. R. S., Sir Robert Christison, Bart., M. D., William Farr, Esq., M. D., F. R. S., J. G. Fleming, Esq., M. D., Captain Douglas Galton, C. B., F. R. S., George Godwin, Esq., F. R. S., Stevenson McAdam, Esq., Ph. D., F. R. S. E., Robert Rawlinson, Esq., C. B., C. E., John Ure, Esq.

This Department considers the various questions relating to Public Health, and collects statistical evidence of the relative healthiness of different localities, of different industrial occupations, and generally of the influence of external circumstances in the production of health or disease; it discusses improvements in house construction (more especially as to the dwellings of the laboring classes), in drainage, warming, and ventilating; public baths and wash-houses; adulteration of food and administrative machinery necessary for its detection; sanitary police; quarantine, etc.; poverty in relation to diseases, and the effects of unhealthiness on the prosperity of places and persons.

Special Questions for Discussion.

1. — What are the best methods of sewering towns and of disposing of their organic refuse?

2. — In what way can healthy working men's dwellings be erected in lieu

of those removed for the purpose of carrying out sanitary or municipal improvements, or for other purposes?

3. — What influence has the employment of mothers in manufactures on infant mortality, and ought any and what restrictions to be placed on such employment?

Secretaries, William Clode, Esq., William Hardwicke, Esq., M. D.

Local Secretaries, George Paterson, Esq., J. B. Russell, Esq., M. D.

IV. — ECONOMY AND TRADE.

President, Sir George Campbell, K. C. S. I.

Vice-Presidents, Lord Dean of Guild, W. E. Briggs, Esq., M. P., Alexander Ewing, Esq., Professor W. B. Hodgson, LL. D., Sir Harcourt V. B. Johnstone, Bart., M. P., Honorable Arthur Kinnaird, M. P., Sir Joseph McKenna, D. L., M. P., Peter McLagan, Esq., M. P., William Newmarch, Esq., F. R. S., Walter Paterson, Esq., Frederick Pennington, Esq., M. P., Honorable Edward Stanhope, M. P.

In this Department are considered the various questions relating to Economies — Social, Political, and Commercial. It also collects information relating to Production, Manufacture, and Trade.

Special Questions for Discussion.

1. — What are the probable effects of the spread of manufacturing industry in Europe on the future commercial prosperity of the United Kingdom?

2. — What are the best means of drawing together the interests of the United Kingdom, India, and the Colonies?

3. — What legislation should follow upon the Report of the Commission on Friendly Societies?

Secretaries, F. G. P. Neilson, Esq., E. L. O'Malley, Esq., Rev. S. A. Steinhal.

Local Secretaries, Hugh Brown, Esq., W. H. Hill, Esq., George Jackson, Esq.

Papers on other subjects than the Special Questions coming within the range of the Departments will be read and discussed.

REGULATIONS CONCERNING PAPERS AND DISCUSSIONS.

The *Special Questions* will be taken in their respective Departments, one on each day, on the Thursday, Friday, and Monday of the meeting.

The Committees will obtain papers to open the discussion of these questions, and any member wishing to contribute papers on them is requested to communicate with the General Secretary, who will inform him whether the papers required on the subject have been obtained.

Voluntary papers on the various subjects comprised within the Departments will be taken on the Saturday and Tuesday.

The length of voluntary papers is limited to twenty minutes in reading.

The Council reserve to themselves the right of refusing any voluntary papers which may be sent in, and even in the case of papers that are accepted, the reading of such paper must depend on the time at the disposal of the Council.

No papers already published can be read.

No papers, when read, can be published by the author (unless by permission of the Council) previous to the publication of the *Transactions* of the Association for 1874.

The Council may print any paper, either wholly or in part, or in an abridged form, or may exclude it from the *Transactions*, as they see fit.

Every paper must be sent to the General Secretary, on or before the 19th of September. On the first page of the paper should be written the question or subject, the name of the author, and his address. A short abstract must be sent in with every paper, whether the paper be upon a *special question* or be a voluntary paper.

SUBSCRIPTIONS AND MEMBERSHIP.

ORDINARY MEMBER'S SUBSCRIPTION. — One guinea, or ten guineas life payment, entitling to admission to the Congress, and to receive a copy of its *Transactions*.

FULL MEMBER'S SUBSCRIPTION. — Two guineas, or twenty guineas life payment, with the privilege in addition of attending the meetings in London and receiving the publications connected therewith, and of the use of the library and reading-room.

ASSOCIATE'S SUBSCRIPTION. — Ten shillings, admitting to the meetings of the Congress only.

LADIES' TRANSFERABLE TICKETS. — Fifteen shillings, admitting to the meetings of the Congress only.

CORPORATE MEMBER'S SUBSCRIPTION. — Societies and other public bodies, two guineas, entitling to send two delegates to all the meetings, and to receive a volume of the *Transactions*.

Tickets for the Congress as above, including the opening address, the meetings of the Departments, the *Soirées*, and other privileges of members, may be had at the Offices of the Congress as under.

TRAVELLING ARRANGEMENTS.

Arrangements will be made with the various railway companies for the issue of return tickets to Glasgow, available from 29th of September to the 8th of October, inclusive, at the ordinary return fares, to persons attending the Congress, on production of a voucher, which may be obtained at the offices of the Association.

Tourists' tickets are issued at all the principal railway stations in England, to Scotland, allowing a break of journey at Glasgow.

A register of apartments will be prepared.

COMMITTEES OF THE NEW YORK MEETING.

Some report has been made of the action taken by the Committees appointed at the New York meeting in May. That of which Dr. Bishop is Chairman, is engaged in its work, but will make no report until 1875. The committee on Destitute and Delinquent Children, as appointed by Dr. Smith, Chairman of the Conference of May 22, consists of Samuel D. Hastings, Madison, Wis., *Chairman.* Charles L. Brace, of New York, Mrs. W. P. Lynde, of Milwaukee, George L. Harrison, of Philadelphia, and Rev. Horatio Wood, of Lowell, Mass. They have power to fill vacancies and to add to their own number, and are to report in 1875.

The Committee on Uniformity of Statistics, appointed at the Conference of Boards of Public Charities, May 20, has been considering the subject ever since that time, and on the 9th of September, reported in part at a special Conference of Secretaries of the State Boards of Charities, convened at the rooms of the Prison Association in New York, (58 Bible House, Astor Place). Their report was accepted, the forms of questions therein proposed were adopted by the Boards represented, and the Committee undertook to consider another statistical subject, in regard to the Insane in Hospitals, upon a suggestion made by Dr. Luther, Secretary of the Pennsylvania Board of Charities.

The following is the

REPORT OF THE COMMITTEE.

The undersigned, a Committee appointed at the New York Conference of Boards of Charities in May last, to consider and report a plan for uniformity of statistics of pauperism and crime, and for better coöperation among the Boards of Public Charities, have attended to that duty, and would report in part as follows: —

I. — THE EXISTING BOARDS OF PUBLIC CHARITY.

It appears that there are at present in the United States nine State boards or commissions charged with the general oversight of charitable work in the States where they exist. These boards, named in the order of seniority, are: —

1. The Massachusetts Board of State Charities, established in 1863.
2. The New York State Board of Charities, established in 1867.
3. The Rhode Island Board of State Charities and Corrections, established in 1869.
4. The Pennsylvania Board of Commissioners of Public Charities, established in 1869.
5. The Illinois Board of State Commissioners of Public Charities, established in 1869.
6. The Wisconsin State Board of Charities and Reform, established in 1871.
7. The Michigan Board of State Commissioners for the supervision of the Penal, Pauper, and Reformatory Institutions, established in 1871.

8. The Connecticut State Board of Charities, established in 1873.

9. The Kansas Board of Commissioners of Public Institutions, established in 1873.

The present officers and members of these boards are as follows: —

1. — MASSACHUSETTS (Term of Office Five Years).

Dr. Samuel G. Howe, Boston, *Chairman;* Edward Earle, Worcester; Nathan Allen, Lowell; Moses Kimball, Boston; F. B. Sanborn, Concord; S. C. Wrightington, Fall River, *General Agent;* Sidney Andrews, Boston, *Secretary.*

2. — NEW YORK (Term of Office Eight Years).

John V. L. Pruyn, Albany, *President;* William P. Letchworth, Buffalo, *Vice-President;* James A. Degrauw, Brooklyn; Nathan Bishop, 11 E. 24th St., New York; Howard Potter, New York; Benjamin B. Shearman, New York; Harvey G. Eastman, Poughkeepsie; Samuel F. Miller, Franklin, Delaware County; Edward W. Foster, Potsdam, St. Lawrence County; Martin B. Anderson, Rochester; Theodore W. Dwight, Clinton, Oneida County.

Ex-officio Members.

The Lieutenant Governor, Secretary of State, Comptroller and Attorney General; Dr. Charles S. Hoyt, Albany, *Secretary.*

3. — RHODE ISLAND (Term of Office Six Years).

George I. Chace, Providence, *Chairman;* William W. Chapin, Providence, *Secretary;* Horace Babcock, Westerly; Samuel W. Church, Bristol; Thomas Coggeshall, Newport; William Hopkins, Providence; John Kenyon, Providence.

Superintendent of State Charities and Corrections.

George W. Wightman, Providence.

4. — PENNSYLVANIA (Term of Office Eight Years).

George L. Harrison, Philadelphia, *Chairman;* G. Dawson Coleman, Lebanon County; Hiester Clymer, Berks County; William Bakewell, Pittsburg; A. C. Noyes, Clinton County; George Bullock, Montgomery County; Francis Wells, Philadelphia; Diller Luther, M. D., Reading, *Secretary.*

5. — ILLINOIS (Term of Office Five Years).

S. M. Church, Rockford, Illinois, *President;* G. S. Robinson, Sycamore; J. C. Corbus, Mendota; Z. B. Lawson, Chesterfield; J. N. McCord, Vandalia; Rev. F. H. Wines, Springfield, Illinois, *Secretary.*

6. — WISCONSIN (Term of Office Five Years).

Hiram H. Giles, Madison, *President;* W. C. Allen, Racine, *Vice President:* Andrew E. Elmore, Fort Howard; Willard Merrill, Milwaukee; Mary E. B. Lynde, Milwaukee; A. C. Parkinson, Madison, *Secretary.*

7. — MICHIGAN (Term of Office Six Years).

Charles I. Walker, Detroit, *Chairman;* Henry W. Lord, Pontiac; William B. Williams, Allegan ; Charles M. Croswell, Adrian, *Secretary.*

8. — CONNECTICUT (Term of Office Five Years).

Benjamin Stark, New London, *Chairman;* Samuel F. Jones, Hartford; Dr. Levi Ives, New Haven; Mrs. George A. Hoyt, Stamford; Mrs. Marriette R. Pettee,[1] West Meriden, *Secretary.*

9. — KANSAS (Term of Office One Year).

C. S. Brodbent, Wellington, *Chairman;* Charles Puffer.

II. — THE FORMS FOR STATISTICAL INQUIRY.

It is proposed that all these Boards shall unite in answering the following questions in their next published reports.

Inquiries to be answered in the Annual Reports of the Boards of Public Charities.

[Beginning with the Reports for the year 1874, now in preparation.]

I. —THE POWERS AND DUTIES OF THE BOARDS THEMSELVES.

1. When was your board established by law, of how many members does it consist, and what are its *general* powers and duties?
2. What special powers have since been conferred upon it, and which of its powers has it actually exercised?
3. What duties does it *now* perform, and in what precise method?
   - A. *Of Supervision.* (Name all the establishments which it oversees and state what powers it has towards these establishments.)
   - B. *Of Administration.* (State whether it can transfer or discharge inmates, appoint or remove officers, control purchases, appropriations, or any of the details of the management of a public establishment; *also*, state whether your board has any control or regulation of immigration into the State, or of the removal of paupers or other dependents out of the State, or from one locality to another within the State; whether it has any judicial powers, or any control over the architecture of new public buildings.)
   - C. *Of Recommendation.* (State whether your Board possesses and exercises the power of recommending changes in the laws or regulations affecting the public dependents; and what means it has for carrying those recommendations into effect.)
   - D. *Of Statistical Inquiry and Report.* (State what these powers are and how they have *actually* been exercised, if at all.)
4. What concurrent, conflicting or controlling boards or authorities exist in your State, which can and do further, impede or set aside the work of your board?

[1] Resigned July, 1874.

II. — THE NUMBER OF PUBLIC DEPENDENTS.

1. What was the *aggregate* and what the *average* number of public dependents in your State (whether under the oversight of your board or otherwise), for the year ending September 30 (or December 31), 1874?
   (*a.*) The aggregate number.
   (*b.*) The average number.
2. State the number in each class composing this aggregate number; namely, —
   A. *Paupers Fully Supported*,
      In almshouses,
      In lunatic hospitals or asylums,
      In private families or otherwise.
   B. *Persons Aided or Partially Supported*,
      In their own families,
      In hospitals, infirmaries and dispensaries,
      In asylums, schools, reformatories, prisons or elsewhere.
   C. *Paupers Removed or Transported.*
      (This may include the care of vagrants, the burial of the dead (not otherwise chargeable), the return of immigrants or interlopers to their own proper place, etc.)
   D. *Grand Aggregate of Paupers*,
      Average of paupers. Number at the beginning and end of the year.
   E. *Insane Persons; viz.*, —
      Whole number in the State at a given date,
      Whole number in hospitals and asylums. (State the number of these supported at *public* expense, either by the State, the counties, or the cities and towns.)
      Whole number in almhouses and prisons,
      Whole number in private families. (State whether supported at *public* or private cost.)
      The *average* number in the above situations,
   F. *Aggregate of the insane*,
      Average of the insane,
   G. *Aggregate of pupils in public reformatories*,
      Average of pupils in public reformatories,
      (State how many of these are also included among paupers above-mentioned.)
   H. *Prisoners; viz.:* —
      Convicts in the State prisons. (Whole number and average.)
      Convicts in houses of correction, district prisons and workhouses. (Whole number. Average.)
      Convicts in jails and county prisons. (Whole number. Average.)
      Persons waiting trial or sentence, or the execution of sentence. (Whole number. Average.)

(State how many of each of these classes are males, how many females; also, how many are likewise included in any of the previously-named classes.)

N. B. — *This is preliminary and essential to giving* —

3. *The grand total of all the public dependents* for the year (duplicates excluded), and the average number; also, the number at *two* given dates, which should be the same in all the reports, — say the first of January and the first of July, in each year.

III. — THE COST OF PUBLIC CHARITY AND CORRECTION.

1. The *whole* net cost of full support for paupers,
   A. In almshouses, etc. (as above).
2. The *whole* cost of aid and partial support,
   B. In their own families. (This is "out-door relief," strictly speaking.)
   In hospitals and dispensaries. In asylums, schools, etc. (as above).
3. The whole cost of vagrants, burials, transportation, etc. (as above).
4. *Grand total of pauper cost.*
5. Cost of the insane. (Specify how much of this is included in the pauper cost, and give the items by classes as above, under E.)
6. Cost of pupils in reformatories, etc. (Specify as in case of the insane.)
7. Cost of prisoners, their support and all expenses, deducting their cash earnings. Specify how much of this is included above.)
8. The grand total of all the expenditure for public dependents, *excluding all duplications of cost*, and giving in the same connection the average number supported in each class, and the average net cost per week for each person.

IV. — THE PUBLIC PROVISION FOR BLIND, DEAF MUTE AND IDIOTIC PERSONS.

1. What is the whole number of blind persons in your State? Of deaf mutes? Of idiots?
2. How many of each class are at school, or in asylums where they are taught something, and how many of such establishments in your State?
3. What methods of instruction are employed? How many persons are subjected to each method, and at what cost annually? (State by whom this cost is paid; how much by the State, how much by the counties and cities, etc., how much by individuals.)

V. — HOSPITAL PROVISION FOR THE SICK.

1. How many hospitals for the sick, special and general, in your State? How many patients can they receive at once; and how many did they receive in the year 1874?
2. How many of these were pauper hospitals, and have their cost included in the pauper expenditure?
3. How many are supported or aided by appropriation of public money, made by (*a*) the State, (*b*) the counties, (*c*) the cities or towns? What is the whole cost to the tax-payers?

4. What was the annual cost in the income of invested funds and endowments? What in receipts from the patients and their families?
5. The whole cost of hospitals and dispensaries. (Specify how much of this is also included in the pauper and prison expenditure.)

VI. — PRIVATE CHARITIES.

1. Estimate the sums expended in private charity in your State *by organized societies*, and the annual number of their beneficiaries, classifying the same as clearly as possible, and excluding *educational* charities, except for the benefit of the classes named above.

III. Remarks on the Questions.

It will be noticed that the above questions apply to each State in which a Board of Charities exists, and are intended to elicit such statements in the next Reports of these Boards as will present all the material facts of a general nature in regard to Pauperism, Insanity and Crime, and their cost to the State for which the Report is made. It is not expected that all the questions can be exactly answered, but it is hoped that where definite statistics cannot be given *for the whole State*, a careful estimate will be made, under each head, and, if possible, in reply to each question. Even in cases where, as in the State of New York, the Board of Charities divides with the Commissioners of Emigration, the Lunacy Commissioner, and the Prison Association, the supervision of charitable and penal establishments, it is hoped that the statistics of Pauperism, Insanity, and Crime for the whole State may be brought together in the Report of the Board of Charities, after obtaining the needful information from the other State authorities. In Pennsylvania and Massachusetts, and perhaps in other States, the attempt is now made, in the Annual Reports, to bring all these statistics together, so as to present an aggregate by means of which the condition of one State can be closely compared with that of another.

It will be further observed that no attempt has been made, in the above questions, to get at the statistics of the *causes* of Pauperism and Crime, as it was suggested in the first session of our Committee might possibly be done. This work — a very delicate and difficult one — has been undertaken in the great State of New York, by the diligent and experienced Secretary of the State Board of Charities, Dr. Hoyt, and is going on at this moment. When it shall have been so far completed that the first general abstract of results can be published, other States will have a guide, of much value, to aid them in a similar task. Until then we would recommend the Boards in other States to make use of Dr. Hoyt's Questions, printed herewith, so far as may be found practicable where the legal and administrative machinery has not been so fully provided as seems to be the case in New York. It is understood that

the form of Questions suggested by Dr. HARRIS, and printed in the Sixth number of the *Journal of Social Science*, had not received his final revision, and was, indeed, rather a brief for use in consultations concerning the investigation to be set on foot, than a completed plan. Using these and other suggestions, with the results of his own careful observations, Dr. Hoyt has drawn up his Questions, which the New York Board adopted as follows: —

SCHEDULE.

For the record of dependents examined by the State Board of Charities and its local committees and agents, under and pursuant to the concurrent resolution of the Senate and Assembly, of May 27th and 29th, 1873. Each of these sheets is designed for the history of a single case. Examiners will be guided by the directions contained therein.

COUNTY POOR HOUSE.

Examination No.

I. NAME, SEX, AGE, SOCIAL CONDITION, COLOR, BIRTH-PLACE, ETC.

1. Name.
2. Sex, (Male M. Female F.)
3. Age at last birthday, years. (If under 1 year state the months.)
4. Social condition, (Single, Married, Widow, Widower, divorced.)
5. Color (White, Black—if mixed, state degree).
6. Birth-place, (State or Country, County, Town, City,). If born in a poor-house or other public institution, state the fact.
   If of foreign birth, how long in the U. S.?
   How long in this State? At what port landed?
7. Birth-place of father, (State or Country, County, Town, City,). (If born in a poor-house or other public Institution, state the fact.)
8. Birth-place of mother, (State or Country, County, Town, City,). If born in a poor-house or other public institution, state the fact.

II. LENGTH OF TIME A DEPENDENT.

9. At what age did this person first become dependent upon public charity?
10. What was the first mode of aid? (State whether by neighborhood, church, organized society, temporary relief by public officials, or full support in a poor-house, or other public institution, the name of which should be given.
11. If first aided outside of institutions, how long was this continued?
12. At what age did this person first become an inmate of a poor-house? years. (If under one year give the months.)
13. How long an inmate of this poor-house? years. (If less than one year give the months.)
14. Has this person been in other poor-houses?
15. If so, how many?

16. How long in all has this person been an inmate of poor-houses? years. (If less than one year give the months.)
17. Has this person been an inmate of any insane asylum, blind asylum, idiot asylum, deaf and dumb asylum or refuge? (If so, state which, and how long.)
18. Has this person been in jails, work-houses, penitentiaries or prisons, convicted of crime? (If so, state which, how long an inmate, and the nature of the offense.)

III. Personal and Family History of the Dependent.

19. Is this person of legitimate or illegitimate birth? (Write which.)
20. Is there consanguinity in the parents? (If so, write what degree.)
21. Can this person read and write?
22. Did this person receive a fair school education?
    If not, why neglected?
23. Had this person habits of idleness?
    " " " of thrift and saving?
    Was this person totally abstinent
    " " a moderate drinker?
    " " a periodical drinker?
    " " a constant drinker?
24. Had the father habits of idleness?
    " " " of thrift and saving?
    Was the father temperate or intemperate? (Write which.)
25. Had the mother habits of idleness?
    " " " of thrift and saving?
    Was the mother temperate or intemperate? (Write which.)
26. Was the father immoral, sensual, or otherwise debased? (State facts.)
    Was the mother immoral, sensual, or otherwise debased? (State facts.)
27. Did this person receive moral and religious training in youth?
28. Did youthful habits of vagrancy and idleness exist? (State facts.)
29. Did this person have a fixed home, or lead a roving life before becoming dependent?
30. What trade did this person ever learn, or what occupation pursue?
31. Why was it abandoned?
32. What was the occupation of the father of this person?
    If a wife, what was the occupation of the husband?
33. Was the father a pauper?
    " mother "
    " grandfather a pauper?
    " grandmother "
    Were any of the brothers of this person paupers?
    " " sisters " "
    " " uncles " "
    " " aunts " "

(Where there are two or more persons of the same family to be examined, questions 24 to 39, inclusive, should be put to one member only.)

34. Total number of persons in the above group of families (three generations living and dead) known to have been dependent on public charity ?
35. Total number in the same group (living and dead) known to have been self-supporting ?
36. Total number of insane (living and dead) in the same group ?
37. Total number of idiots (living and dead) in the same group ?
38. Total number of inebriates (living and dead) in the same group ?
39. Total number who have been in penitentiaries or state prisons (living and dead) in the group ?
(Questions No. 40 and 41 should be put to the father only, if both parents are living and present ; if not, then to the only living parent.)
40. If a parent, how many children has this person now living ?
41. What is their condition ; are they in poor-houses, asylums, hospitals, refuges, etc., or are they self-supporting ? (Write the fact.)

IV. Existing Causes of Dependence.

42. Homeless childhood (illegitimate),
" (abandoned),
" (by death of father),
" (by death of mother),
" (by death of both parents),
" (by pauperism of parents),
" (by imprisonment of parents for crime).
43. Homeless by abandonment of husband,
" by death of husband,
44. Old age and destitution,
45. Permanent disabling disease (with the name of it).
86. Temporary disabling disease or sickness (with the name of it).
47. Crippled (how),
Deformed (how),
48. Loss or impairment of any of the five special senses. (State which, and how.)
49. Loss or impairment of any other natural faculty or bodily power. (Write what faculty or power, and how lost or impaired.)
50. Insanity ? Idiocy ?
Epilepsy ? Paralysis ?
51. General feebleness of the mind ?
" " " body ?
52. Impairment or degeneration of the bodily powers, or mental faculties, from inebriation ? (State the facts.)
53. Is there proof of insanity, epilepsy, paralysis, special feebleness of mind or body, syphilis, or any other entailment of bodily or mental misfortune from parentage in this person's history ? (If so, note the fact.)
54. Is there mental or moral perversion, or morbid and debasing conditions of mind ? (If so, state the fact and the causes to which attributed.)
55. Is this person capable of self-supporting labor without supervision ?
56. Is this person capable of self-support under direction and supervision ?
57. How is this person's time employed in this institution ?

58. What is the chief cause of dependence in the case of this person, and what, if any, the remedies?
59. What appears to be the destiny of this person as respects recovery from the cause of dependence?
60. What family relatives of this generation, if any, have the pecuniary ability to suitably provide for, or take care of this person? (State facts and evidence.)

NOTE. — These Schedules should be numbered in the order of examination, and where there are two or more persons of the same family in any institution, they should be examined consecutively, commencing with the parents if present, if not with the oldest representative.

IV. GENERAL COÖPERATION IN CHARITABLE WORK.

It is hoped that the Boards of Public Charity enumerated above, and such others as may be from time to time established in the other States, will find it convenient, as it certainly would seem to be useful, to maintain a constant correspondence with each other, and to meet together for conference at least once a year. There can hardly be a too zealous coöperation between such Boards, having common interests, and an intelligent desire to improve the methods of charitable and penal admintration throughout the country, — since a bad system anywhere in use, affects, more or less directly all those States which may have a better system. A good example of such coöperation among the officials of a single State (larger, to be sure, than all New England), is to be found in the Annual Convention of the County Superintendents of the Poor in New York, which, for the present year was held at Rochester on the 9th of June. Thirty-four of the counties were represented on that occasion, by more than fifty delegates; and there were also present three members of the State Board of Charities, and the Secretary of the New York Prison Association. The new legislation and the recent administrative experience of the whole State, in regard to pauperism, were there ably discussed, and the published proceedings, are of value to students of Social Science, all over the land. If what is here done in a single State could be done in all the States, great advantage would result. Even if this is not possible, for years to come, it will be possible to bring together the fifty or sixty persons who serve on the State Boards of Charities, for a yearly conference and comparison of methods and results. The undersigned, having been empowered to do so, have invited a conference of the Secretaries of these Boards in the City of New York to-day, and propose to call a general meeting of all the members of Boards at some convenient time and place next year.

Respectfully submitted.

F. B. SANBORN, of *Massachusetts*,
WILLIAM P. LETCHWORTH, of *New York*,
H. H. GILES, of *Wisconsin*.

NEW YORK, *September* 9, 1874.

THE ANNUAL MEETING OF 1874.

The American Social Science Association will hold its Tenth Annual Meeting in Boston, Wednesday, October 14, 1874, at 10, A. M., continuing through the day. The election of officers for 1875 will be the first business, after the reports of the Secretary, the Treasurer, and the Secretaries of Departments are presented. Several propositions for amending the constitution will be offered, of which public notice is hereby given according to custom. The first amendment proposed relates to Article II., and is to the effect that the Association shall include *five* Departments, instead of *four* as at present, the fifth Department to be styled "of Social Economy." The second amendment proposed relates to Article III., and is as follows: —

"Wherever the word 'Executive Committee' is found, the same shall be stricken out, and the word 'Council' put in its place; and there shall be admitted as members of this Council, those officers who now compose the Executive Committee, and also the Secretaries of the five Departments and the Chairmen of Local Departments, who shall be *ex-officio* Directors of the Association, and the Chairmen of Branch Associations, who shall be *ex-officio* Vice Presidents of the Association."

The third amendment proposed relates also to article III., and is to this effect: —

"That the words 'to conduct the affairs of local sections' be stricken out, the word 'four' be changed to 'five," and the words 'annually in the month of December,' be inserted after the words, 'The Chairmen of the Department and Local Committees shall be chosen;' and that instead of the words 'the second Wednesday of October," be substituted "the second Wednesday of January;' also that wherever the word 'established' occurs, it shall be followed by the words 'and annually confirmed."

The fourth amendment proposes in general terms, to determine the relations between the Association and its Departments and Branches, and to fix more definitely the character and time of convening the General Meeting; also to make the phraseology of the constitution more consistent and intelligible.

It is expected that a few papers will be read and discussed at the afternoon session of the Annual Meeting, and all the Members of the Association are hereby invited to be present. The place of meeting will be the Hall of the Lowell Institute.

By order of the Executive Committee.

GEORGE WILLIAM CURTIS, *President.*
F. B. SANBORN, *Secretary.*

5 PEMBERTON SQUARE, BOSTON, *September* 26, 1874.

MEMBERS OF THE ASSOCIATION.

In addition to the names of members printed in Number Six of the Journal, the following are to be entered on the list: —

ANNUAL MEMBERS.

Brainerd, Cephas, 48 Pine Street, New York.
Coffin, Charles F., Richmond, Indiana.
Jarvis, Edward, Dorchester, Mass.
Joy, Charles A., Columbia College, New York.
Letchworth, William P., Buffalo, New York.
Means, William G., 16 Hancock St., Boston.
Pellew, Henry E., 18 W. 33d St., New York.
Phillips, Wendell, Boston.
Rotch, Miss Joanna, Milton, Mass.

In the list of addresses, "Ayres, John," should be 7 Exchange Place.

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PAPERS AND PROCEEDINGS

OF THE

GENERAL MEETING

OF THE

AMERICAN SOCIAL SCIENCE ASSOCIATION,

Held at Detroit, May 11–14, 1875.

Publication Committee.

F. B. SANBORN. GAMALIEL BRADFORD.

Mrs. S. PARKMAN.

PREFACE.

ALTHOUGH it was expected, when Number Seven of this Journal was published, that the next number would contain the proceedings and papers of the annual meeting of October, 1874 (including Prof. Bonamy Price's address on finance, and the debate thereafter), it was found expedient to defer publication until the General Meeting at Detroit should have taken place. That meeting supplied the Association with such a wealth of papers and debates, that the Publication Committee has been compelled to make a selection from them, and to defer, postpone, or omit much that might well have been printed. Most of the omitted papers, however (such as Mr. Paine's on "Homes for the People," Mr. Wasson's on "Church and State in Germany," and Pres. Eliot's report on "Printing for the Blind"), have been so freely published and circulated in newspapers and pamphlets, that they have not failed to reach the general public. A list of the addresses, papers, and reports, presented at Detroit, and a brief sketch of the proceedings subsequent to the President's opening address, will be found, along with the Constitution and list of officers and members of the Association, at the close of this number. The Proceedings of the Detroit Conference of Charities, held in connection with the general meeting, were published last October, and distributed to members. This "Extra Number," and preceding numbers of the *Journal of Social Science*, may be procured of the editor in Boston, or of the present publishers for the Association, A. Williams & Co. Special Papers, including the Detroit Address of Mr. WELLS, may be obtained of the same publishers or of the selling agents in New York, Philadelphia, Cincinnati, and St. Louis. The announcement of meetings of the American Social Science Association at Philadelphia and Saratoga will be found on the last page of this number.

THE DETROIT GENERAL MEETING OF THE AMERICAN SOCIAL SCIENCE ASSOCIATION.

OPENING SESSION.

The first session of the Tenth General Meeting was held in the Opera House at Detroit on Tuesday evening, May 11, 1875. The President of the Association, Mr. Wells, took the chair, after an address of welcome had been delivered by Hon. Charles I. Walker, President of the Detroit Branch Association. The annual address of the President then followed; after which Prof. C. K. Adams of the University of Michigan read a paper on *Church and State in Germany*, by Mr. D. A. Wasson of Boston. The session closed with the reading of a Report from the Health Department, by Dr. D. F. Lincoln (printed among the Proceedings of that Department on pp. 84–86). This and all the subsequent sessions of the General Meeting were well attended by the people of Detroit; and very full reports were published by the enterprising and accurate newspapers of that city. For its hospitable reception, and for the success of the meeting, the Association is much indebted to the officers of the Detroit Branch Association, and particularly to Messrs. Z. R. Brockway, H. V. Brown, and C. I. Walker. Judge Walker, before introducing Mr. Wells to the audience, gave expression to the good-will of Detroit and its citizens, in the following address of welcome, the sentiments of which were cordially put in practice by the people of Detroit, during the continuance of the General Meeting: —

ADDRESS OF WELCOME.

Gentlemen of the American Social Science Association.

It becomes my pleasant duty, in behalf of the local Social Science Association, to welcome you to our beautiful City of the Straits, — a city new, yet old; new as a centre of a large population, new as a commercial metropolis of a great State, new in its material wealth and prosperity, yet old in its history and old in its experience. Founded by the French, for the larger part of a century it was under their dominion; and it was repeatedly besieged by hostile savages, and its very existence threatened. These dangers it survived. Then came the period of British dominion, made memorable and classic by the siege of Pontiac.

We, too, are entitled to our centennial. The report of that gun fired at Concord and Lexington, whose reverberation has encircled the world, was listened to with no little feeling in this City of the Straits. Detroit, too, was interested in Bunker Hill, in Saratoga, and in the Declaration of Independence; but not on the same side with you, gentlemen of the Old Thirteen. But we have been a part of the American Union since 1796; and we have, with a grand magnanimity, forgiven you the capture of our Gov. Hamilton at Vincennes by George Rogers Clark, and the terrible fight produced by the remarkable conduct of that Kentucky hero, and have also forgiven the American Revolution itself. We give you just as cordial a greeting as if we had not during that long seven years sent forth from here British and Indian forces to devastate your borders.

It is one of the encouraging features of this modern Christian civilization, that amidst prevailing personal and political corruption, and the selfishness developed by the fierce struggle for the acquisition of wealth, there is a class of men, and a large one, both in this and other lands, of broad culture and profound thought, who are devoting their time and best energies, not to the advancement of selfish interests, but to the consideration of those great social problems upon the wise solution of which the welfare of society so largely depends. We welcome you here as representatives of this class. Your labors excite no enthusiasm — bring no popular applause; but, assisted by the press, that ever-ready helper in every good work, they will essentially aid in promoting the highest interest of society, and in introducing that ideal state, "that good time coming," so long foretold by poet and seer as well as by Christian philanthropist.

May your stay with us be as pleasant to you as it will be agreeable and profitable to us! Again we bid you a cordial welcome.

Judge Walker then introduced Hon. David A. Wells, President of the Association, whose address follows.

INFLUENCE OF THE PRODUCTION AND DISTRIBUTION OF WEALTH ON SOCIAL DEVELOPMENT.

By David A. Wells.

Being the Annual Address of the President of the Association.
Read at Detroit, May 11, 1875.

Ladies and Gentlemen, — In welcoming you to this first meeting in the States of the North-west, of the American Association for the Promotion of Social Science, with the address which ancient custom and a recognition of the fitness of things seems to require should be made by the presiding officer on such occasions, I propose to ask your attention to a line of thought touching the agencies which perhaps more than any other, are contributing to the moulding and development of society; namely, the production or accumulation, and the distribution, of that which we call wealth, or capital: meaning thereby abundance of all those things which contribute to our well-being, comfort, and happiness.

And, in so doing, the first point I would ask you to consider is, that, out of all of his present accumulations of wealth, man has never created any thing. What Nature gives, he appropriates; and in this appropriation, or collection of natural spontaneous products consists the original method of earning a living, — the method still mainly depended on by all uncivilized and barbarous people. The first advance upon this method is to make provision for the future by carrying over supplies from seasons of abundance to seasons of scarcity, or in learning the necessity and benefits of accumulation. But, in all this, man does nothing more than the animals, who, following what we term the promptings of instinct, gather and lay up stores in the summer for consumption in the winter; and he lifts himself above the animals only when, and proportionally as, he learns that he can tempt Nature to give more abundantly, by bringing various kinds of matter and various forces together, or into such relations as will enable them to act upon each other under the most favorable circumstances. And it is in the attainment and application of this knowledge of how to tempt Nature to give, — or, as we term it, "*to produce*," using to express our meaning most correctly a word which signifies "*to lead forth*," and not "*to create*," — that the distinction is to be found between

the civilized and uncivilized methods of earning a living; man in the one case being mainly a collector, and in the other a "*drawer-out,*" or producer. And herein, furthermore, is to be found the characteristic, or, as Chevalier the French economist expresses it, "the mystery and marvel, of our modern civilization; namely, that, through the attainment and exercise of increased knowledge and experience, we have so far come to know the properties of matter and the forces of Nature, as to enable us to compel the two to work in unison for our benefit with continually increasing effectiveness; and so afford to us from generation to generation a continually increasing product of abundance with a continually diminishing necessity for the exercise of physical labor." And, as some evidence of the degree of success thus far attained to in this direction, we have the simple statement, — yet of all things the one most marvellous in our experience, — that at the present time, in Great Britain alone, the force annually evolved through the combustion of coal, and applied to the performance of mechanical work, is directly equivalent to the muscular power of at least one hundred millions of men; or, to state the case differently, the result attained to is the same as if the laboring population of Great Britain had been increased twelve-fold, without necessitating any material increase in production for the support and sustenance of this additional number.

Another illustration to the same effect, but one more recent and less familiar, is afforded by the construction and operation of the Suez Canal. Thus, a few years ago, a swift voyage from England to Calcutta, *viâ* the Cape of Good Hope, was from a hundred and ten to a hundred and twenty days. Now steamers by way of the canal make the same voyage in about thirty days. Here, then, is a diminution of seventy-five per cent on the enormous stocks of goods continually required to be held unused, involving continued risk of depreciation, loss of interest, and cost of insurance, to meet the requirements of mere transit. Add to which the fact, that the improvements in marine engines enable these vessels to work with about one-tenth less coal, and therefore carry proportionally more cargo, than they could seven or eight years ago; and that the construction of the telegraph between England and India enables dealers and consumers also to regulate their supplies without carrying excessive stocks of commodities, keeps prices steady, and discourages speculation,— and we have in this single department of trade and commerce a saving and release of capital and labor for other purposes and employments, that amounts to a revolution.

What is yet to be accomplished in the way of increasing the proportion of product to manual labor, time alone can show; but there is no evidence at present to indicate that we are approaching any limitation to further progress in this direction. A writer in "The London Econo-

mist" in 1873, evidently most conversant with his subject, claimed that the industry of the population of Great Britain at that time, taken man for man, was nearly twice as productive as it was in 1850; and I do not think that any one can review the industrial experience of the United States as a whole since 1860, but must feel satisfied that our average gain in the power of production during that time, and in spite of the war, has not been less than from fifteen to twenty per cent. And, if this statement should seem to any to be exaggerated, it is well to call to mind, that it is mainly within the last fifteen years that the very great improvements in machinery adapted to agriculture have been brought into general use; that whereas a few years ago, men on the great fields of the West cut grain with sickles and with cradles, toiling from early morn to dewy eve in the hottest period of the year, the same work may be done now almost as a matter of recreation; the director of a mechanical reaper entering the field behind a pair of horses, with gloves on his hands, and an umbrella over his head, and in this style finishing the work in a fraction of the time which many men would formerly have required, and in a manner much more satisfactory. I would also recall to you, that, in the manufacture of boots and shoes, three men now, with the aid of machinery, can produce as much in a given time as six men unaided could have done in 1860; that we have forty thousand more miles of railroad now than we then had to assist us in the work of exchange and distribution; that we can send our telegrams now for less than one-half what it actually cost to do the work in 1866; and finally, taking the Pennsylvania Central Railroad as a type, that we can send our freight by railroad at an average of 1.48 of a cent per ton per mile, as compared with a charge of 2.41 on the same road for the same service in 1864.

And, as a curious incident of this continuous progress, it may be here also noted, that the abandonment of large quantities of costly machinery in most branches of staple manufactures, and its replacement by new, is periodically rendered a matter of absolute economical necessity, in order to produce more perfectly and cheaply, and at the same time avoid the destruction of a much greater amount of capital by industrial rivalry; thus strikingly illustrating an economic principle to which attention was, I think, first called by my friend Mr. Atkinson of Boston, — that the absolute destruction of what has once been wealth often marks a greater step in the progress of civilization than any great increase in material accumulation; the breaking-up and destruction of the old machinery, and its replacement by new, in the cases referred to, being the sole conditions under which a diminution of the cost of production could be effected, and the abundance of product be made greater.

We are often accustomed to speak of, and perhaps look forward to, a period which we call "millennial," which is to be characterized in particular by an absence of want of all those things which minister to our material comfort and happiness. But when that period arrives, if it ever does, one of two things must take place: either man must so far change his nature as to be able to exist in comfort without a supply of all those objects which are comprised under the general terms, *food, clothing, shelter,* and *luxuries;* or else the forces of nature must be so much further subordinated and brought under our control, as to do *all* our work for us, instead of, as now, doing but a part; and thus become in all respects our all-sufficient ministers and servants.

But, when that time comes, then all material wealth, as we ordinarily use the term, must disappear; for that only is wealth which has exchangeable value, and that only has exchangeable value which is desired. But we can neither value nor desire that which, like the air, is at all times given to all, in excess of any possible use or necessity.

But, fanciful as may be this speculation, it is nevertheless a most interesting and suggestive circumstance, that all of our true material progress constantly points in this same direction: inasmuch as the great result of every new invention or discovery in economic processes is to eliminate or discharge value; making those things cheap which were before dear, and bringing within the reach and use of all what before were for the exclusive use and enjoyment of the few. Thus, in 1170, Thomas A Becket was accounted extravagant because he had his parlor strewed every day with clean rushes; and, four hundred years later, cloth was so scarce that Shakspeare makes Falstaff's shirts cost him four shillings per ell. But few are so poor nowadays as not to be able to afford some sort of a carpet for their parlor; and, making allowance for the purchasing power of money at the different epochs, Falstaff's four shillings would now give him near *forty* times the same quantity.

Again: Sir Henry Bracton, who was Lord Chief Justice of England in the time of Henry III., wrote in the way of legal illustration, that if a man living in Oxford engage to pay money the same day in London, a distance of fifty-four miles, he shall be discharged from his contract, by reason of his undertaking to do a physical impossibility. But to-day, what Bracton regarded as impossible, can be readily accomplished in from sixty to eighty minutes.

That this wonderful and continued increase in the gross product of every department of human industry and enterprise has been also attended with a general rise in the standard of comfort, leisure, and enjoyment, available everywhere to the masses, is sufficiently proved by not only the most superficial of observation, but also by a great variety

of statistics, which, although not as yet in any degree formulated or referred to an average, are nevertheless exceedingly interesting.

Thus, for example, the British commercial reports indicate that the ability of the populations of Russia and of Germany to consume cotton has at least doubled since 1851; that in Sweden the increase has been fourfold; and in Paraguay, fivefold. And not merely has the consumption of cotton cloth increased in near and remote regions, but the ratio of absorption among the working classes of Europe, of articles which a generation ago were luxuries to them, has also been most rapid and remarkable; the ratio of increase having been most marked in the average *per capita* consumption of meats, tea, sugar, coffee, cocoa, wines, and spirits.

But, gratifying as these evidences of increasing abundance certainly are, the cry of the poor, at least to the superficial observer, seems not less loud, and the difficulties of earning a living, or of getting ahead in the world, seem not less patent than they have always been; while the discontent with the inequalities of social condition are certainly more strikingly manifested than at any former period. To understand fully the origin of this social paradox, is to presuppose a full understanding of the whole domain of social science, or of the laws and phenomena involved in all societary relations; a degree and comprehensiveness of knowledge which it is safe to affirm has been attained to by no man. But there is, at the same time, a record of experience indicating the duties incumbent on society in respect to some of these matters, which cannot too often be pressed upon public attention.

In the first stage of society, property can hardly be said to exist at all, or it exists in common. In the second stage, individual rights appear; but property is to a great extent held and transferred by force, and the generally accepted principle governing its distribution is, *that might confers right.* As society has progressed, however, the reign of violence and lawlessness has gradually diminished, until now the acquisition and retention of property has come to depend on superiority of intellect, quickness of perception, skill in adaptation, — the cunning and the quick being arrayed against the ignorant and the slow, — while the principle which has come to be the generally accepted basis of all commercial, industrial, and financial transactions, is succinctly expressed by the coarse and selfish proverb, "*Every man for himself, and the Devil take the hindermost.*" And if we consider these terms as symbolical, and for the word "*Devil*" substitute absence of abundance, — want, misery, and privation; and for the word "*hindermost,*" the masses, who constitute the bulk of every densely populated community, — then it must be admitted, that the Devil thus far has been eminently successful. But the governing and controlling influences of society — meaning thereby

the rich, the well-to-do and most intelligent classes — have for a considerable time found out one thing of importance, and are beginning to find out another thing of even greater significance.

The *thing which they have found out* is, that it is not for the interest of any portion of society, regarded simply from the point of view of individual selfishness, and not in accordance with the religion of Christ and humanity, to allow the Devil to take anywhere, or to any extent, the hindermost; and *the thing which they are beginning to find out* is, that the hindermost, who constitute, in this struggle for the acquirement and retention of property, the masses, are becoming fast conscious of their power and influence, and are determined of themselves, that they will not, if they can help it, be captured by this devil of civilization; and, if obliged to succumb to him, may, like the communists of Paris, endeavor to draw down with them the whole fabric of society into one common vortex of destruction.

Out of the *first* of these discoveries have come schools, hospitals, churches, sanitary and social reforms, the spirit and the power of charity, and all brotherly kindness; out of the *second*, strikes, trades-unions, the crystallizing antagonism of labor against capital, the spirit and the teachings of socialism, the practice of communism.

It took society a good while to make the first discovery; but it has been forced upon it through bitter and costly experience. There was probably no less of kindness of heart five hundred years ago among individuals than now, no less of natural sympathy with the poor, no less of individual religious zeal to do as we would be done by. But society certainly did not act as now in respect to those things which society only can properly control and regulate; as, for example, sanitary reform, general education, protection of private rights, and the like. And for such neglect society paid the penalty; for, when the black-death and the plague came, they were no respecters of persons, and the rich in common with the poor went down to the slaughter. But when the well-to-do classes of society found out that these foes had their origin in want of drainage, and especially in lack of ventilation and cleanliness among the poor, and began to move in the matter, and provide remedies, then the black-death and the plague abated, and finally disappeared altogether.

During the reign of Henry VIII., seventy-two thousand thieves *are said* to have been hanged in England alone; which, if true, would indicate that "about one man in ten," during this reign, which extended over two generations, was, to use the words of the old historian, "devoured and eaten up by the gallows."[1] But society has now found

[1] Mr. Froude, while regarding this statement as wholly unwarranted, nevertheless admits, that the English criminal law of that period "was in its letter one of the most

out that hanging is one of the worst possible uses to which a man can be put to; and that it is a great deal cheaper to prevent than to punish, to incur effort and expenditure to save the inefficient and the criminal from becoming such, rather than to save society from them after they have once become so; and that, of one of these two courses, society has got to take its choice. Furthermore, as showing how social science investigations are taking propositions of this character out of the domain of philanthropic theory, and making them practical matter-of-fact demonstrations, I submit to you the following illustrations.

Thus it has been estimated in England, that the ordinary expense of bringing up a child from infancy to fourteen, in the best-managed public institutions or asylums, cannot be put down at less than 4*s.* 6*d.*, or somewhat over a dollar (gold), per week; and for the United States it is undoubtedly much greater. But taking the minimum sum as the basis of estimate, and allowing nothing for any outlay for education or amusement, the cost at fifteen will have amounted without interest to about eight hundred dollars; and at eighteen, allowing for all expenditures and for interest, each individual may be regarded as an investment by society of at least fifteen hundred dollars of capital economized for production.

Now, if from this period the individual fails to fully earn his own living, society loses not only the amount expended for his bringing-up, but other persons must be taxed on their labor and their capital to provide for his future support and maintenance; so that the general stock of abundance at the disposal of society is not increased, but diminished. If the individual turns pauper or mendicant, and does nothing whatever for his own support, the cost to society will be greater, though differently apportioned. If he turns thief or criminal, he will be supported even yet more expensively by society; for he will be maintained by plunder or in prison. But in whatever condition he may live, either idle or vicious, in prison or out of prison, the loss incurred by the community for each such individual for his life, which, after the attainment of fourteen years, is likely to continue until forty, cannot be less in the United States than five thousand dollars; a loss in Massachusetts alone, in which State at least one in fourteen of her entire population are paupers, criminals, or needlessly idle and dependent, would be equivalent to an unproductive expenditure of over five hundred millions of capital — the results of some other person's labor — for each and every generation.[1]

severe in Europe;" and that, "in the absence of graduated punishment, there was but one step to the gallows from the lash and the branding-iron."

[1] For this illustration, I am indebted to the address of Mr. Edwin Chadwick, C. B., at the opening of the meeting of the British Association for the Promotion of Social Science, 1869–70.

Another illustration to the same effect, drawn more directly from the domain of actual fact, and one of the most remarkable ever placed upon record, has been brought to the attention of the public during the past year, by members of this association, — Dr. Harris and Mr. R. L. Dugdale of New York, — namely, the history of a female pauper child, who some eighty years ago, abandoned as an outcast in one of the interior towns of New York, and allowed by society to remain an outcast, has repaid to society its neglect by becoming the mother of a long line of criminals, paupers, prostitutes, drunkards, and lunatics; entailing upon the county of her residence alone an expense of over one hundred thousand dollars, and upon society at large an estimated cost of over one million of dollars; included under which last head, is an item of twenty-five thousand dollars for the simple prosecutions and trials of one hundred and twenty criminals and offenders, who received as the result an aggregate of one hundred and forty years' imprisonment.[1]

And thus it is, that reasoning from a purely economic point of view, and leaving all moral and religious conditions out of sight, we arrive at an absolute demonstration, that the very best thing society can do to promote its material interests, is to so far abandon its old principle of "*each man for himself*," that each man shall concern himself with the welfare of his neighbors and fellow-citizens to the extent at least of seeing that the Devil be nowhere permitted to take even the humblest and weakest of the hindermost. By many, perhaps by a majority of the community, the Association for the Promotion of Social Science is undoubtedly looked upon as an association of *doctrinaires;* clever men naturally, but at the same time men of seclusion and of study, unacquainted with the details of practical life, who like to meet together

[1] Of the descendants of this pauper child and her sisters, 709 have been accurately tabulated; while researches by Mr. Dugdale indicate that the total aggregate of their descendants reach the large number of 1,200 persons, living and dead.

"Of the 709, 91 are known to be illegitimate and 368 legitimate, leaving 250 unknown as to birth. 128 are known to be prostitutes; 18 kept houses of ill-fame; and 67 were diseased, and therefore cared for by the public. Only 22 ever acquired property, and eight of these lost what they had gained; 172 received outdoor relief during an aggregate number of 734 years; 64 were in the almshouse of the county, and spent there an aggregate number of 96 years; 76 were publicly recorded as criminals.

"The crimes of the females were licentiousness, and those of the males violence and theft. But the record quoted is merely their public history of criminality, which is necessarily very imperfect. Great numbers of offences of this wretched family were never entered on any court records; and hundreds were never brought to trial. Another appalling feature in this history of criminal inheritance is the disease spread through the county by these vagrant children, and the consequent lunacy, idiocy, epilepsy, and final weakness of body and mind, which belongs to inherited pauperism, transmitted to so many human beings." — *Report of Children's Aid Society, New York*, 1875.

periodically, hear themselves talk, and see their names appended to long articles in the magazines and newspapers. To any such I would commend, for instruction and conversion, a typical illustration of social science work, as embodied in a paper, by Dr. W. E. Boardman of Boston, recently published by the State Board of Health of Massachusetts. In this paper it is shown that the rate of mortality in Massachusetts — twenty in a thousand — is higher than in most of the States of the Union; that it compares *quite unfavorably* with many of the larger cities of Europe, that it tends to increase rather than diminish, and more especially that there is an increasing amount of death and sickness from causes which are known to be avoidable; also, that there is every reason to suppose, that by encouraging the study and following out the teachings of sanitary science, the death-rate of the State can be speedily reduced from twenty to fifteen per thousand; and, that in case this is done, the saving in the cost of sickness and disability to the working classes alone of the State will not be less than *three* millions of dollars per annum. Now, if the man who makes two blades of grass grow where but one grew before, is a public benefactor, how much more so is the individual who, by the patient gathering and study of statistics like these, convinces a community of a danger in respect to which it would otherwise be long ignorant; and then, as the result of such conviction, initiates a reform which not only greatly diminishes the aggregate of human suffering, but also greatly increases the aggregate of material abundance? Nay, further, can any soil be cultivated, can any work be done, likely to yield so large fruition, so many blades bearing ears with full corn in the ear, as this work of the so-called *doctrinaires?*

And there is yet one other thing which society is also beginning to find out; and that is, that all these questions relating to the production and distribution of wealth, and the avoidance on the part of society of waste, and the economizing of expenditure, affect an infinitely higher class of interests than those measurable by dollars and cents; and that the laws underlying and controlling economic progress are either identical with the laws underlying and controlling intellectual, moral, and religious progress, or at least are so far similar and closely connected as to be mutually interdependent. And we hold furthermore, that it is mainly from a lack of perception and appreciation of this truth, especially by those to whom the mission of making men better is particularly intrusted, that so much of the work undertaken in these latter days by philanthropic and religious associations has been like seed sown upon stony ground, productive of but little benefit.

"The study and investigation of these questions of taxation, currency, and the production and distribution of wealth," said one of our best-

known philanthropists lately "are all very well, and undoubtedly most important; but somehow they do not interest me. They seem to me to be wholly material, while the great thing, in my opinion, to be worked for on behalf of society, is the attainment of a larger life."

Now, as to the ultimate issue and end of all our effort, I fully agree, a larger life is the one thing essential. It is the consummation of all social progress, the crowning glory of all Christian civilization; the aspiration of a future state of existence. But on this earth, and while we continue in the flesh, in order that there may be a larger life, there must be an exemption from such servitude of toil as precludes leisure; and, in order that there may be more leisure with less want, there must be greater abundance; and, in order that there *can* be greater abundance, there must be larger production, more economical using, and a more equitable distribution. So that instead of there being any real or fancied antagonism, or diversity of interest, between the work of investigating and determining the laws which govern the production and distribution of wealth, and the business of calling men to a larger and a higher life, the former, as society is at present constituted, must be the forerunner and coadjutor of the latter; or the labor of the latter, as has been too often the case, will be labor in vain.

When Van der Kempt, a Dutch missionary, first entered upon his work in South Africa, he devoted himself in the outset to the labor of reconstructing and improving the dwellings of the natives; and for this purpose followed for a time the business of the brickmaker, the mason, and the carpenter. When taken to task for doing these things, rather than devoting his whole time to the preaching of the gospel, he is said to have made answer substantially as follows: that while he had no doubt that the Spirit of God would enter a brush hut with a mud floor, and dwell therein, he felt equally certain that it would come more readily into a house with a tiled roof, dry floor, and glazed windows; and, when there, would be more likely to abide permanently. And he was right; for the reason that it is not easy — nay, all but impossible — to lead a life of intellectuality, purity, and righteousness, amid filth, poverty, and all the adjuncts of physical debasement. And, if this proposition be correct, then it is a condition precedent to the future progress and well-being of society, *first*, that there shall be continually increasing abundance; and, *second*, that this abundance shall also, to the greatest extent consistent with the retention and exercise of individual freedom, be equally distributed among the masses. And the great question of the age, one which the course of events shows that we must before long, either voluntarily or involuntarily, meet and answer, is, How can these ends be best accomplished?

By the majority of those who have undertaken to discuss these questions in the interests of labor, the idea is put forth, that the ends desired can be most fully and rapidly attained through the enactment of law; but, in respect to the extent to which the law is to be made operative, the ideas which are entertained and expressed have no little of diversity.

In Europe, the masses emerging from the sluggishness and torpor in which for centuries, like brutes, they have been content to suffer and to wait, and grasping at once the idea — long familiar to the people of this country — that all men are created equal, have speedily passed to a conviction, that, because thus created equal, they have, in common with all, an equal right to all acquired property. And hence we find such leaders in the labor-movement as Proudhon and others in France and Germany, assuming and maintaining the position "*that property is theft,*" and demanding that through legislation the State shall take possession of all property, and provide for all its citizens an equal and adequate support.[1]

[1] On the first publication of this address (newspaper report), very sharp criticism was made on the above allusion to the views of M. Proudhon and others of the communistic movement in Europe, by Mr. B. R. Tucker (translator of an American edition of the life and writings of Proudhon), and others, on the ground that the statement in question was incorrect, and did not fairly represent what Proudhon really did say and propose. As the subject is one of economic interest, the statement made by Mr. Tucker, in the labor-reform journal, "The World," is here given.

"The Hon. David A. Wells, in a recent speech at the Social Science Convention in Detroit (portions of which we print on the first page), made two misstatements in regard to the doctrines of Proudhon, which need to be corrected. It is, of course, undeniable that Proudhon's first notable utterance to the world, and the one to which he chiefly owes his influence and celebrity, was the naked and startling assertion that 'property is robbery;' and the truth of this proposition, strange as it may seem to an American Professor of Social Science, he successfully maintained to the day of his death, *but always with an interpretation of his own.* Whether this interpretation is a correct one or not, it is not our purpose here to consider; our only object at present being to show that Mr. Wells's assertion, though *literally* true, is in reality false. If by property is meant the possession and control of one's earnings, that institution has no stancher or more intelligent defender than P. J. Proudhon of France. We recommend Mr. Wells to study that portion of Scripture which teacheth that 'the letter killeth, but the spirit giveth life.' In Proudhon's Second Memoir on Property, written in vindication of his course in publishing his First Memoir, which caused such consternation among the French *savants*, occurs the following passage, which explains the meaning attached by him to the phrase in question: —

"'I have, then, declared, my hand upon my heart, before God and men, that the causes of social inequality are three in number: 1, *gratuitous appropriation of the results of collective labor;* 2, *inequality in exchange;* 3, *the right of profit or increase.* And, since this threefold method of extortion is the very essence of the domain of property, I have denied the legitimacy of property, and proclaimed its identity with robbery. . . . I have traced all secondary questions back to the one fundamental question over which at present so keen and diversified a conflict is raging, — the question of the right of property. Then, comparing all existing theories with each other, and extracting from them that which is common to them all, I have endeavored to discover that element in the idea of property

Now, it would seem as if no argument could be needed in this country to expose the wickedness and folly of such a proposition; and yet such doctrines, in a thinly disguised form, are continually preached in this country by men claiming to be respectable and intelligent, to a much greater extent than the community are generally aware; and not only preached, but received with an apparently increasing favor and interest. Thus, for example, in a tract issued by one of the recognized leaders of the eight-hour movement in Massachusetts, I find the statement that the ultimate end and meaning of this special labor reform is to be, the compulsory limitation of labor by legislative enactment to six hours per day; *and that,* out of such a law and co-operation,

which is necessary, immutable, and absolute, and have asserted, after authentic verification, that this idea is reducible to that of *individual and transmissible possession, susceptible of exchange but not of alienation, founded on labor, and not on fictitious occupancy or idle caprice.*' "

On the other hand, Mr. W. Jungst, one of the editors of the Cincinnati "Volksfreund," formerly a member of one of the German Governments, and who has made the study of Communism in Europe a specialty, writes as follows: —

"Mr. Wells was perfectly right in his Detroit speech, in saying that Proudhon's and other communists' intention was to abolish all private property, and to have it owned by the commune (the new government of the working-men). M. Proudhon answers the questioning title of the book which gave him his reputation (published in 1840), '*Qu'est-ce-que la Propriété?*' (What is Property?), with the plain clear words, which nobody can misunderstand, '*La propriété c'est le vol*' (property is theft). Every one acquainted with the book of Proudhon referred to will admit the correctness of this quotation. M. Proudhon demands the abolition of all property, and, in the first instance, that of all landed property, of interest, and of rent. He says, 'To whom belongs the rent of land? To the producer of land, without doubt. Who made the land? God. Then, proprietor, begone!' And, furthermore, 'Property is theft; and it is not necessary to maintain it; it is not necessary to demand compensation for it; but what is necessary is to abolish it.' Similar assertions will be found in nearly all his books published prior to 1858; they form the leading idea in his first book mentioned above, — *Qu'est-ce-que la Propriété?* and partly in his *Système des Contradictions économiques, ou Philosophie de la Misère.*

"No more proofs or quotations from M. Proudhon's books will be necessary, to vindicate Mr. Wells in the full sense of the word. It was not misrepresenting the ideas and intentions of M. Proudhon, — what Mr. Wells said, — but giving them in their true light.

"Again: M. Proudhon is not the inventor, only the imitator, of the doctrine that property was theft. The merit of it belongs to M. Brissot in his *Recherches philosophiques sur le Droit de Propriété et le Vol, publiés* 1780. M. Proudhon, however, re-asserts his own doctrine in plain words on p. 363, vol. i., of his book, *De la Justice dans la Révolution et l'Eglise*, 3 vols., published in 1858; and again in his posthumous work, *Théorie de la Propriété*, 1865. He admits expressly that he had made a mistake in setting up the doctrine of a third principle, to equalize the contradiction of property and communism. What he meant by this third principle, which he represents as a higher synthesis, M. Proudhon has never developed.

"M. Proudhon was a brilliant dialectician of the school of Hegel, with Kant's antinomy. His language was splendid, his imagination rich; but his thoughts were confused, and without any logic. His mind was permanently filled with isms in opposition to every thing. Proudhon is dead since 1865; he and his works are forgotten in Europe; and, the less the Americans know both, the better it will be for their welfare.

"Respectfully, W. JUNGST."

"CINCINNATI, Aug. 26, 1875.

it will follow, *that "the commonest or the most obscure laborer will live, if he chooses, in dwellings as beautiful and as convenient as any which are now monopolized by the wealthy."* [1] To render his plan, however, in any degree practicable, the author singularly omitted to provide by statute, that all men should be born with an exact physical and mental capacity for production, and that, if any one by increased industry or frugality should perchance produce more than another, the surplus should be forcibly taken from him without compensation. Under such circumstances it cannot be doubted that all at no distant day would come to live in houses of equal similarity; but the style of architecture which would prevail would probably closely resemble that which now characterizes such truly free localities as the Desert of Sahara, the interior of Caffre-land, or the domains of the Esquimaux.

Other illustrations to the same effect may be found in the circumstance that a paper is now issued regularly in New England, which is devoted mainly to the object of combating the receipt of interest or hire for the loan or use of capital, or, what is the same thing (whether the editors be or be not conscious of it), of combating abundance or accumulation; that the same idea finds favor in numerous pamphlets recently issued in various parts of the country, some of which exhibit no small ability; and finally in the disposition so frequently evinced by our legislative bodies, to deal with corporate property in accordance with the principle of *might*, rather than in accordance with the principle of right.

It is therefore well for us, even here in this boasted land of freedom and intelligence, occasionally to go back to first principles, and see where these ideas about the distribution of wealth by direct or indirect compulsion, or about diminishing the incentives for personal accumulation, are likely to lead us.

It is evident, in the first place, that such notions are wholly antagonistic to the idea of personal freedom, unless we mean to restrict the meaning of freedom simply to the possession and control of one's own person irrespective of property, which would involve little more than the right to free locomotion; and, second, that they tend to impair the growth of, if not wholly to destroy, civilization itself. For if liberty is not afforded to all, rich and poor, high and low, to keep, and to use in whatever way they may see fit, that which they lawfully acquire, subject only to the necessary social restraint of working no positive ill to one's neighbor, — then the desire to acquire and accumulate property will be taken away; and capital, meaning thereby not merely money, which constitutes but a very small part of the capital of any community,

[1] The Meaning of the Eight-Hour Movement. Ira Steward, Boston, 1868.

but all those things which are the accumulated results of labor, foresight, and economy, — the machinery by which abundance is increased, toil lightened, and comfort gained, — will, instead of increasing, rapidly diminish.

And, in order to comprehend the full meaning of this statement, allow me to call your attention to an illustration of the extreme slowness with which that which we call capital accumulates, even under the most favorable circumstances.

By the census of 1870, the aggregate wealth of the United States, making all due allowances for duplication in valuation, was probably not in excess of *twenty-five thousand millions*. But vast as the sum is, and difficult as it certainly is for the mind to form any adequate conception of it in the aggregate, it is nevertheless most interesting to inquire what it is, that measured by human effort, it represents. And the answer is, that it represents, *first*, a value, supposing the whole sum to be apportioned equally, of about six hundred and twenty dollars to each individual, — not a large amount, if one was to depend on its interest at six per cent as a means of support; and, *second*, it represents the surplus result of all the labor, skill, and thought exerted, and all the capital earned and saved, or brought into the country, for the last two hundred and fifty years, or ever since the country became practically the abode of civilized men.

Now, with capital, or the instrumentalities for creating abundance, increasing thus slowly, it certainly stands to reason that we needs be exceedingly careful, lest, by doing any thing to impair its security, we impair also its rate of increase; and we accordingly find, as we should naturally expect from the comparatively high education of our people, that the idea of any direct interference with the rights of property meets with but little favor upon this side of the Atlantic. But at the same time we cannot deny that many of the most intelligent of the men and women interested in the various labor-reform movements in this country, taking as the basis of their reasoning the large nominal aggregate of the national wealth, and the large advance which has recently been made in the power of production, and considering them in the abstract, irrespective of time or distribution, have nevertheless adopted the idea, — vague and shadowy though it may be, — that the amount of the present annual product of labor and capital is sufficient for all; and tha t all it is necessary to do to insure comfort and abundance to the masses, is for the State somehow to intervene, — either by fixing the hours of labor, or the rates of compensation for service, or the use of capital, — and compel its more equitable distribution.

Now, that a more equitable distribution of the results of production

is desirable, and that such a distribution does not at present take place to the extent that it might without impairing the exercise of individual freedom, must be admitted; but, before undertaking to make laws on the subject, is it not of importance to first find out how much we have really got to divide?

Let us see.

Stated in money, the maximum value of the annual product of the United States is not in excess of $7,000,000,000 (probably less); of which the value of the annual product of all our agriculture, — our cotton and our corn, our beef and our pork, our hay, our wheat, and all our other fruits, — is returned by the last census with undoubted approximative accuracy, at less than one-half that sum; or in round numbers at $2,400,000,000.

But while this sum of estimated yearly income, like the figures which report the aggregate of our national wealth, is so vast as to be almost beyond the power of mental conception, there is yet one thing about it which is certain, and can be readily comprehended; and that is, that of this whole product, whether we measure it in money or in any other way, fully nine-tenths, and probably a larger proportion, must be immediately consumed, in order that we may simply live, and make good the loss and waste of capital previously accumulated; leaving not more than *one-tenth* to be applied in the form of accumulation for effecting a future increased production and development.

Or to state the case differently, and at the same time illustrate how small, even under the most favorable circumstances, can be the annual surplus of production over consumption, it is only necessary to compare the largest estimate of the value of our annual product, with our largest estimate of the aggregate national wealth, to see, that practically, after two hundred and fifty years of toiling and saving, we have only managed as a nation to get about three and a half years ahead, in the way of subsistence; and that now if, as a whole people, we should stop working and producing, and repairing waste and deterioration, and devote ourselves exclusively to amusement and idleness, living on the accumulation of our former labors or the labor of our fathers, four years would be more than sufficient to starve three-fourths of us out of existence, and reduce the other one-fourth to the condition of semi-barbarism; a result, on the whole, which it is well to think of in connection with the promulgation of certain new theories, that the best way of increasing abundance, and promoting comfort and happiness, is by decreasing the aggregate and opportunities of production.

In fact, there are few things more transitory and perishable than that which we call wealth; and, as specifically embodied in the ordinary forms we see about us, its duration is not, on the average, in excess of the life of a generation.

The railroad system of the country is estimated to have cost more than two thousand millions of dollars; but if left to itself, without renewals or repairs, its value as property in ten years would entirely vanish; and so also with our ships, our machinery, our tools and implements, and even our land when cultivated without renovation. For it is to be remembered, that those same forces of nature which we have mastered, and made subservient for the work of production, are also our greatest natural enemies, and if left to themselves will tear down and destroy much more rapidly than under guidance they will aggregate and build up. A single night was sufficient in Chicago to utterly destroy what was equivalent to one quarter of the whole surplus product which during the preceding year the nation had accumulated; and of all the material wealth of the great and rich nations of antiquity, — of Egyptian, Assyrian, Tyrian, and Roman civilization, — nothing whatever has come down to us, except, singularly enough, those things which, like their tombs and public monuments, never were possessed of a money valuation.

But the inferences which we are warranted in drawing from these facts and figures are by no means exhausted. Supposing the value of our annual product — seven thousand millions — to be equally divided among our present population of forty millions: then the average income of each individual would be $175 per annum; out of which food, clothing, fuel, shelter, education, travelling expenses, and means of enjoyment, are to be provided, all taxes paid, all waste, loss, and depreciation made good, and any surplus available as new capital added to former accumulations.

Now, if at first thought this deduction of the average individual income of our people seems small, it should be remembered that it is based on an estimate of annual national product greater both in the aggregate, and in proportion to numbers, than is enjoyed by any other nation, our compeers in wealth and civilization; and, further, that this $175 is not the sum which all actually receive as income, but the average sum which each would receive, were the whole annual product divided equally. But as a practical matter we know that the annual product is not divided equally; and, furthermore, that, as long as men are born with different natural capacities, it never will be so divided. Some will receive, and do receive, as their share of the annual product, the annual average we have stated, multiplied by hundreds or even thousands; which of course necessitates that very many others shall receive proportionally less. And how much less, is indicated by recent investigations which show, that for the whole country the average earnings of laborers and unskilled workmen is not in excess of four hundred dollars per annum, — the maximum amount being received in New Eng-

land, and the minimum in the Southern, or former slaveholding States; which sum, assuming that the families of all these men consist of four (the census of 1875 says five), two adults and two children, would give one hundred dollars as the average amount which each individual of the class referred to produces, and also the amount to which each such individual must be restricted in consumption; for it is clear, that no man can consume more than he or his capital produces, unless he can in some way obtain the product of some other man's labor without giving him an equivalent for it.

We are thus led to the conclusion, that notwithstanding the wonderful extent to which we have been enabled to use and control the forces of nature for the purpose of increasing the power of production, the time has not yet come, when society in the United States can command such a degree of absolute abundance as to justify and warrant any class or individual, rich or poor, and least of all those who depend upon the product of each day's labor to meet each day's needs, in doing any thing which can in any way tend to diminish abundance; and furthermore, that the agency of law, even if invoked to the fullest extent in compelling distribution, must be exceedingly limited in its operations.

Let the working-man of the United States therefore, in every vocation, demand and strive, if he will, for the largest possible share of the joint products of labor and capital; for it is the natural right of every one to seek to obtain the largest price for that which he has to sell. But if in so doing he restricts production, and so diminishes abundance, he does it at his peril; for, by a law far above any legislative control or influence, whatever increases scarcity not only increases the necessity, but diminishes the rewards of labor.

Street processions, marching after flags and patriotic mottoes, even if held every day in the week, will never change the conditions which govern production and compensation. "Idleness produces nothing but weeds and rust; and such products are not marketable anywhere, though society often pays for them most dearly."

But if law, acting in the manner proposed by the representatives of the working-men, is not likely to avail any thing, and if abundance is not as great as it might be, and distribution not as equitable as it ought to be, wherein is the remedy? Shall we let things drift along as in times past, trusting that Providence will finally do for us what we are unwilling or unable to do for ourselves?

My answer to this is, that the first step towards effecting a solution of the problem under consideration is to endeavor to clearly comprehend the conditions involved in it; and that, when we have entered upon an investigation for that purpose, we shall soon see that the causes which

tend to diminish abundance, and restrict the rewards of labor, in the Old World, are not the same as exist in the New; and that therefore the agencies adopted for relief in the one case are not likely to prove remedial in the other.

In the Old World, the prime cause of the lack of abundance, and its resulting pauperism, is an over-crowded and increasing population.

All the natural resources, originally the free gift of Nature, have long ago been fully appropriated, and in part exhausted. Every foot of arable land has its owner or tenant; every mine, quarry, forest, or tree-bearing fruit, its possessor; and even the right to fish in the waters, or capture the wild beasts of the field or the fowls of the air. has become in a great degree an exclusive privilege.

When there is but *one to buy*, and *two to sell*, the *buyer* fixes the price. When there are *two to buy*, and only one to sell, the seller has the advantage.

Now, Europe, in respect to labor, has been for centuries the *seller*, rather than the *buyer*, of labor; and the buyer, therefore, has always been, and is now, all-powerful in fixing its price, and controlling it to his advantage. Again, in a country whose natural capital or resources — i.e., fertile and cheap land, abundant timber, food, minerals, &c. — is unexhausted or unappropriated, as in the United States, the rewards of labor, or wages, will be necessarily high; and on the other hand, where the reverse condition of things prevails, as in Europe, the rewards of labor, as expressed in wages, must be comparatively less. In other words, as has been pointed out by Prof. Cairnes, "So far as high wages and profits are indications of cost of production at all, high wages and profits are indications of a low cost of production, since they are indications, — being, in fact, the direct results, — of high industrial productiveness." Nothing, therefore, more strikingly illustrates the difference in the conditions of the labor-problem in Europe and the United States, than the difference in the average rate of the wages of labor in the two countries; and also the fallacy of the popular notion, that legislative interference is necessary in the United States to protect domestic industry against the pauper-labor of Europe; or, in other words, to protect the people of the United States against the evils of abundance.

Under such a state of things, therefore, the efficient remedy, and indeed the only remedy, against pauperism in an over-crowded country, must be emigration; and it is one of the most curious of social phenomena, that, while the results of the most recent investigations show that thousands in the great cities of Europe are annually crowded out of existence by the mere fact of their numbers, there are

yet almost continental areas of the earth's surface, healthy, easy of access, and comparatively uninhabited, where the amount of labor necessary to secure all the essentials of a simple livelihood is but little in excess of the instinctive requirements of the system for physical exercise; as, for example, in the delicious islands of Polynesia, where a temperature obviating any requirement for artificial heat prevails uninterruptedly, and where the plantain, the cocoa-palm, and the bread-fruit spring up and flourish spontaneously; and also in the West Indies, where the late Charles Kingsley, in his book "A Christmas in the West Indies" (1871), says, that one of the first things which a visitor learns in landing at "Port of Spain," in the Island of Trinidad, is, that there are eight thousand persons, or about one-third of the population of the city, who have no visible means of support, or who live without regular employment, and yet are evidently strong, healthy, and well-fed. The same author also describes the life of an English emigrant in this island, whom he visited, as follows: —

"The sea gives him fish enough for his family. His cocoa-palms yield him a little revenue. He has poultry, kids, and goat's milk more than he needs. His patch of provision-ground gives him corn and roots, sweet potatoes, and fruits all the year round. He needs nothing, and fears nothing, owes nothing.

But, *per contra*, Mr. Kingsley adds: —

"News and politics are to him like the distant murmur of the surf at the back of the island, — a noise which is nought to him. His Bible, his almanac, and three or four old books on a shelf, are his whole library. He has all that man needs, more than man deserves, and is far too wise to wish to better himself;" which last expression is equivalent to saying, that, the animal wants being abundantly satisfied, he wishes to remain an animal. And this conclusion, furthermore, may be regarded as the result of necessity rather than of choice; for, if man resident in the tropics is desirous of any thing much beyond what Nature furnishes almost as a free gift, the realization of the desire can only be attained through labor under conditions of climate so exhausting that the white race shrinks from its execution, and for the most part is incapable of its endurance; as is seen, for example, in the raising of cotton, coffee, sugar, and other similar tropical productions. And it would indeed seem as if Nature, in view of the fact that great physical exertion and an elevated temperature are incompatible, had made provision for man's residence in the tropics by furnishing him, with the minimum of exertion, those vegetable products which are especially adapted to maintain and support a physical existence. And whether we admit the example of design, or not, it is certainly curious to note how man, when transferred from temperate zones

to tropics, instinctively adapts himself to these conditions, and exchanges a life of activity for one of indolence. Of this, the description of the European emigrant in the West Indies, which I have quoted from Mr. Kingsley, is one illustration. Another is to be found in the fact, often noted and commented on, of the rapidity with which young men of New England, sent out as clerks or factors to Singapore, Manilla, or Calcutta, exchange their original physical and intellectual activity for the listless indolence of the native population. And, descending to the animal kingdom, it is said that the northern honey-bee, transported to the West Indies, ceases after the first season to make provision for the winter, and, laying aside its habits of industry with the necessity for exertion, becomes not only a drone, but a veritable pest to the community.

In the United States, on the other hand, the case is entirely different. We have, in the first place, no excess of population in proportion to the area of country inhabited; but, on the contrary, we have, as a source of abundance and a certain barrier against want, that which no nation of Europe possesses; namely, an almost unlimited supply of cheap, fertile land. We have such a variety of soil, of climate, and of crop, that a deficiency of food, which in very many civilized countries is ever a source of anxiety, is with us a matter of impossibility; for the very conditions which tend to reduce the aggregate of the crops in one section tend to increase their fruition in some other. We have, as it were, the monopoly of the staple textile fibre of the world's clothing. We have more of coal, the symbol and the source of mechanical power, than exists in all other countries. We have every facility, natural and artificial, for the transportation and exchange of products. We have a form of government in which the will of the people constitutes the law. We have, in short, all the conditions which give to labor its greatest productiveness, and to capital its greatest reward. And if to-day these conditions are not fulfilled; if there is not to-day unison between labor and capital; if there is not a sufficient degree of material abundance, and a sufficient equity in its distribution, to lift up life among the masses, and make it somewhat more than a struggle for existence, — then we shall be forced to one of two conclusions: either the obstacles which militate and prevent these results are all artificial; or that it is in accordance with the designs of Providence, that there shall always be a needy and dependent class, that there is a natural antagonism between labor and capital, and that the capacity of the earth for production is not adequate to meet the natural increase of the population that Providence has placed upon it.

Now, I, for one, fully accept the first of these conclusions, and wholly reject the latter. And although there is much about us which would

seem to indicate that the characteristic evils which affect society in the *Old* World are being transferred to the *New;* though the present tendency seems to be towards a concentration of wealth in a few hands, to make the rich richer and the poor poorer, — I nevertheless feel certain that the causes which have led to these results, and which for the present stand in the way of a greater abundance and a larger life, are wholly within our control, and essentially different from the causes which in Europe are recognized as working disadvantageously to the interests of the masses. To specifically enumerate them, and to point out the degree in which each is operative, may not as yet, through lack of reliable data, be practicable; but, generalizing broadly, three causes may be mentioned as especially militating against the augmentation of abundance in the United States: —

First, Failure to secure the proper and possible maximum of production in industrial enterprises which have long since passed beyond the domain of experiment.

Second, Inexcusable and inordinate waste in using.

Third, Inequalities in distribution, due to obstructions created by legislation.

I have thus reviewed, as briefly as the subject will admit, some of the principal obstacles which at present, in this country, seem to me to stand in the way of a greater material abundance, a more equitable distribution, and a larger life. Did time and opportunity suffice, an almost infinite amount of curious and interesting illustrations, drawn from our recent national experiences, might be given; but, apart from any further detail, the general results of our economic progress since 1860 may be summed in brief as follows: We have increased the power of production with a given amount of personal effort throughout the country, probably at least *fifteen,* and possibly twenty per cent. We have increased the cost of living within the same period, to the masses, to the extent of from *thirty to fifty* per cent. But startling as is this statement, the truth of which any man can verify if he will, the attainment of a better result is entirely within the power of society in this country to effect, if it will only avail itself of remedies whose simplicity and effectiveness long experience has proved beyond all controversy.

But herein consists the difficulty. Like Naaman the Syrian, we are anxious to be cleansed; but, like Naaman, we expect to be called upon to do some great thing, and experience a measure of disappointment when told that the simplest measures are likely to prove the most effectual.

In point of natural resources, Providence has given us all that we desire. And that these resources may be made productive of abundance,

great and overflowing, to all sorts and conditions of men, there must be, *first*, industry and economy on the part of the individual; and *second*, on the part of society, a guaranty that every man shall have an opportunity to exert his industry, and exchange its products, with the utmost freedom and the greatest intelligence; and, when society has done this, we will have solved the problem involved in the relations of capital and labor, so far as the solution is within the control of human agency; for in giving to each man opportunity, conjoined with freedom and intelligence, we invest him, as it were, "with crown and mitre, and make him sovereign over himself."

THE WORK OF SOCIAL SCIENCE, PAST AND PRESENT.

A Report by the General Secretary, F. B. Sanborn.

Read at Detroit, May 13, 1875.

Mr. President, and Members of the Association, — While bringing before you in brief review the transactions of our Association and the general progress in social science during the busy year that has passed since our last general meeting, an occasion may be found at the outset for recalling to your memory the beginning and the early history of the American Social Science Association, which is now in its tenth year, and working with great activity and amid a more general interest in its work than has ever existed before. There have been times when the number of our members was greater than now, and a year or two in which our pecuniary resources have been larger than during the last twelve months; but there has never been a period in which more intellectual activity and practical ability have been directed toward the problems of social science in America.

And yet when our original members, some of whom I see in this audience, revert in mind to the enthusiastic meeting in October, 1865, at which our Association was formed, they will perhaps remember with a certain regret, as I do, the warmth and eagerness with which we then launched for the voyage, and anticipated noble results from our venture. It was at the close of a long and sharp civil war, by which the national authority had been maintained, the national purpose vindicated, and the Republic restored, as we believed, to its auspicious birthright. We were no longer in danger of losing the inheritance of Washington and the fathers; and we rated at their full value all the additions to our national patrimony which the two generations since Washington had handed down to us, or carelessly flung at our feet. We felt ourselves in 1865 to be literally

"Heirs of all the ages, in the foremost files of Time;"

and there was little that we did not fancy ourselves capable of achieving. I fear we must confess now that we rather overestimated our powers: perhaps even it must be said, as Washington said in the ebb and slime of that gloomy period which followed the successes of the first American revolution, "We have thought too well of human

nature." For we have come into one of those seasons of political and social collapse when the worst and most ignoble aspects of human nature offer themselves shamelessly, even proudly, to our view; when the national life, viewed in some of its most conspicuous examples, seems

> "Sullen and stagnant as the marshy pool
> Whose side the rank sedge crowds, while the green ooze
> Spreads o'er the shallows its soft, slimy veil."

But if our opportunity as disciples and missionaries of social science appeared (as it certainly did) more attractive ten years ago than it now appears, the need of our labors was never greater than in this very era of stagnation and corruption. "They that be whole need not a physician, but they that be sick;" and whether we are nursing the patient, or studying his disease, it is equally important that we should know its nature and remedy.

It has been objected to some of those who study social science, that they make too practical a matter of it, and rush at once to a remedy for supposed evils, instead of calmly investigating the conditions of the problem. The *science* of society is indeed one thing, and the *art* of regulating and improving society is quite another thing; and as Mill long ago observed, very justly, "It is not necessary, even to the perfection of a science, that the corresponding art should possess universal or even general rules." But he also added, still more justly, "To guard against the dangers or accidents to which our species is exposed by practical instructions founded on the highest branch of speculative sociology, will form the noblest and most beneficial portion of the political art." Hence the large share that philanthropy in its various forms has always taken in social science, — a share which I regard as most proper and legitimate. As to our main work, Mr. Mill has in another passage, written long since, laid down some wholesome propositions in order to vindicate the claims of social science, then but imperfectly understood. In the sixth chapter of the sixth book of his System of Logic we find these words: —

"Next after the science of individual man comes the science of man in society, of the actions of collective masses of manhood, and the various phenomena which constitute social life. It is but of yesterday, that the conception of a political or social science has existed anywhere but in the mind of here and there an insulated thinker, generally very ill prepared for its realization; though the subject itself has, of all others, engaged the most general attention, and been a theme of interested and earnest discussions, almost from the beginning of recorded time. . . . The science of society would have attained a very high point of perfection, if it enabled us in any given condition of social affairs, — in the condition, for instance, of Europe or any European country at the present time, — to understand by what causes it had, in any and every particular, been

made what it was; whether it was tending to any and what changes; what effects each feature of its existing state was likely to produce in the future; and by what means any of these effects might be prevented, modified, or accelerated. There is nothing chimerical in the hope that general laws, sufficient to enable us to answer those various questions for any country or time, *with the individual circumstances of which we are well acquainted*, do really admit of being ascertained. Such is the object of the Social Science."

Such is, no doubt, the ultimate object of social science, as Mill says; but it was hardly with such a lofty, philosophic ambition that our movement began in the spring of 1865. In August of that year, the Massachusetts Board of Charities issued the circular calling a meeting at Boston in October, in which certain subjects were specified as proper to be considered by the "Social Science League." The signers, among whom were those original and constant members of our Association, Dr. S. G. Howe, Dr. Allen of Lowell, and Edward Earle, said, —

"Our attention has lately been called to the importance of some organization in the United States, both local and national, whose object shall be the discussion of those questions relating to the sanitary condition of the people, the relief, employment, and education of the poor, the prevention of crime, the amelioration of the criminal law, the discipline of prisons, the remedial treatment of the insane, and those numerous matters of statistical and philanthropic interest which are included under the general head of 'Social Science.' An association for the consideration of these questions has existed in Great Britain for several years, including among its members many of the most eminent philanthropists and statistical writers of that country. Its published proceedings have been of great service to England and to the world."

It will be noticed that the subjects here specified were those coming more particularly under the notice of the Board which invited the meeting of October, 1865; but at that meeting (over which the lamented Gov. Andrew presided, in the last year of his administration in Massachusetts) a broader significance was given to the term "Social Science." The constitution there adopted declares that the objects of our Association are, —

"To aid the development of social science, and to guide the public mind to the best practical means of promoting the amendment of laws, the advancement of education, the prevention and repression of crime, the reformation of criminals, and the progress of public morality, the adoption of sanitary regulations, and the diffusion of sound principles on the questions of economy, trade, and finance. It will give attention to pauperism and the topics related thereto; including the responsibility of the well-endowed and successful, the wise and educated, the honest and respectable, for the failures of others. It will aim to bring together the various societies and individuals now interested in these objects, for the purpose of obtaining, by discussion, the real elements of truth; by which doubts are removed, conflicting opinions harmonized, and a common ground afforded for treating wisely the great social problems of the day."

In a report of a committee which drew up this original constitution, we find the following additional explanations of the

AIMS AND METHODS OF THE FOUNDERS OF THE ASSOCIATION.

"The persons composing it are expected to meet together, to read papers and pursue discussions, and to seek the assistance of those who have a practical acquaintance with reform, as well as that of purely abstract reasoners. They are to collect all facts, diffuse all knowledge, and stimulate all inquiry, which have a bearing on social welfare. It has long since been shown, that the man of science who confines himself to a specialty, who does not, at the very least, conquer the underlying principles of other branches of scientific inquiry, is necessarily misled, and cannot avoid frequent mistakes. To have any perception of the perspective of his subject, he must see it in its relation to other subjects. Something like this is true of those who investigate the necessities of society. If they associate themselves together, they have the advantage of each other's knowledge; they do not misunderstand their own relative positions; and they insure an economy of time, labor, and money. We would offer the widest hospitality to individual convictions, and to untried theories, provided only that such convictions and theories are the fruit of a serious purpose and an industrious life. To entertain the vagaries of the indolent would be at once undignified and unprofitable.

"Under the Department of Education will come every thing relating to the interests of public schools, universities, and colleges; to reformatory, adult, and evening schools; to instruction in the useful arts; to systems of apprenticeship; to lyceums, pulpits, and the formation of societies for the purposes of public instruction. In this Department will be debated also all questions relating to classical, linguistic, and scientific studies, in their proportion to what is called an English education; and the bearing of the publication of national and patriotic memorials upon popular culture.

"Upon the Department relating to public Health, a very large proportion of the popular interest will naturally be fixed. All sanitary and hygienic matters will come before it; and what the Sanitary Commission has learned in the last four years will be made available, through its action, to the people at large. The subjects of epidemics, of the origin and spread of cholera, yellow fever, and eruptive diseases, will be legitimately discussed here. It will consider all questions of increase of population, vaccination, ventilation of public and private buildings, drainage, houses for the poor, the management of cemeteries, public baths, parks, and public gardens, places of recreation, the management of hospitals and insane-asylums, the adulteration of food and drugs, all questions relating to the duration of human life, sanitary regulations of the army and navy, and all matters of popular interest connected with medical science. We shall look to our ablest physicians and surgeons for contributions to this department.

"Under the head of Social Economy we shall consider pauperism, *actual* rather than legal, and the relation and the responsibilities of the gifted and educated classes towards the weak, the witless, and the ignorant. We shall endeavor to make useful inquiries into the causes of human failure, and the duties devolv-

ing upon human success. We shall consider the hours of labor, the relation of employers and employed, the employment of women by itself considered, the relation of idleness to female crime, prostitution and intemperance, workhouses, public libraries and museums, savings banks and dispensaries. Here, too, will be discussed national debt, the subjects of tariff and taxation, the habits of trade, the quality of our manufactures, the control of the markets, the monopolies in the sale of food or the production of articles of common use, the value of gold, and all questions connected with the currency.

"In the Department of Jurisprudence we aim to consider, first, the absolute science of right; and, second, the amendment of laws. This Department should be the final resort of the other three; for when the laws of education, of public health, and social economy, are fully ascertained, the law of the land should recognize and define them all. Under this head will be considered all questions of the justice, the expediency, and the results of existing statutes, including their administration and interpretation, and especially their bearing on suffrage, property, privilege, debt, crime, and pauperism."

Unquestionably there are in this enumeration defects of analysis and classification, omissions, and matters that the lapse of time has rendered comparatively unimportant. Our experience has led us to divide the third Department into two, — the one for Trade and Finance, and the other for Social Economy, strictly speaking; and we have included in the latter some of the topics at first assigned to the Departments of Education, Health, and Jurisprudence, many of which have relations with all the departments. Substantially, however, it may be said that we are pursuing now the general course marked out in the report of October, 1865, above cited. In further illustration of what this course was, let me quote from the list of "questions proposed for discussion," mainly prepared in 1866, by our former President, then Corresponding Secretary, Dr. Samuel Eliot, to whose high intelligence, zeal, and industry our Association owes so much. These "questions" called for the following data, which were to be furnished by members of the Association who might choose to pursue special investigations: —

THE FINE ARTS IN EDUCATION AND INDUSTRY: DATA REQUIRED.

1. The experience of foreign countries upon this point.

2. What provision exists in our own country for extending the knowledge of the arts, or employing them in education or industry?

3. Statements concerning the possibility of opening public galleries of painting and sculpture in one or more of our large cities, and the establishment or extension of schools of design.

4. Applications of the fine arts to American manufactures.

5. Statements respecting the development of the fine arts in industry, as opening new and suitable vocations for women.

THE HALF-TIME SYSTEM OF INSTRUCTION: DATA REQUIRED.

1. The localities and schools where the system is now in use.
2. The actual results of introducing it in schools formerly taught on the old system.
3. The number of school-hours in each week, the number of studies pursued, and the number of different classes in schools using the half-time system.
4. The feasibility of introducing this system in communities where the old system is established by law and long usage.

THE PROVINCE OF LAW IN REGARD TO EDUCATION, PUBLIC HEALTH, AND SOCIAL MORALS: DATA REQUIRED.

1. Statements of the effects of *compulsory* education, as contrasted with voluntary efforts to educate the people.
2. The observed effects, and the practical limits, of sanitary legislation.
3. The effects of restrictions upon gambling, prostitution, intemperance, &c., imposed by statute and enforced by the police.
4. Statements respecting the qualifications, responsibility, and efficiency of the police, including the higher police, the minor officers, and the detective force.

THE SEWERAGE OF GREAT CITIES: DATA REQUIRED.

1. Facts concerning the sewerage of cities on tide-water.
2. The corresponding facts concerning inland cities.
3. Statements of possible means for extending the sewerage of cities to meet the wants of a rapidly increasing population.

THE MANAGEMENT OF HOSPITALS AND INSANE-ASYLUMS: DATA REQUIRED.

1. Facts and principles of construction, with regard not only to arrangement of buildings and grounds, but also to extent of accommodations, and number of patients in any single institution.
2. Facts and principles of classification, with regard to the separation of different classes and individuals among patients, and (in insane asylums) the distinction of chronic and recent cases of insanity.

NATIONAL DEBT AND A NATIONAL CURRENCY: DATA REQUIRED.

1. Statements of the national debt of the United States, as compared with that of other countries, both now and in former years.
2. The modes of contracting and liquidating a national debt, as seen in the experience of the United States and of other countries; with an especial view to the observed effect of a national paper currency, and the debasing of the current coin, on the increase and diminution of national debt.
3. The national resources, as advanced or checked in their development by a great national debt, and the limits of proportion between debt and resources, with a view to exhibit and define what is meant by national bankruptcy.
4. The facts which tend to show the true relation of gold and silver to a sound and manageable currency, especially such facts as have been elicited by the financial exigencies of European and American wars.

TAXATION AND REVENUE: DATA REQUIRED.

1. Statements of the methods of taxation and the amount of revenue collected in the several States of the Union, in the United States, and in the principal countries in Europe, especially since the year 1800.

2. The *observed* results of excise duties on trade and manufactures, particularly under the internal revenue acts of the United States; the historical origin and effects of income taxation in Europe and America, and similar information with regard to import and export duties, land taxes, bank and corporation taxes, tithes, postal duties, and generally of all methods of raising public revenue.

3. The tendency of sagacious economists and statesmen in Europe and America towards common principles of taxation, both for the advantage of the revenue and for the promotion of national industry and morality.

LABOR AND CAPITAL: DATA REQUIRED.

1. The amount and classification of productive labor in any of the States or in the United States, or in any of the countries of the world, the amount and modes of investment of capital in the same localities, and the present and past relations between labor and capital, whether established by law, custom, or necessity.

2. The *observed* effects on labor and on capital, of any change in the laws of labor required by law or custom for a day's work.

3. Facts relating to the causes and results of strikes among laborers; their effect on labor itself and on the capitalist.

CRIME AND PUNISHMENT: DATA REQUIRED.

1. The penal codes of different communities, and the changes made in them from time to time, and the reasons and results of such changes.

2. Facts concerning capital punishment.

3. Facts concerning past and present systems of prison discipline, particularly with regard to the *separate*, the *congregate*, and the *Irish* systems.

4. Facts concerning the treatment of intemperance as a crime or as an evil; with a statement of the legal means employed to diminish it, and the result of such means when employed.

5. Facts concerning pardons and the pardoning power, especially with regard to conditional pardons, or "tickets of leave."

6. Facts concerning the criminal class in different States and countries, especially those bearing on the permanence and possibility of reformation of this class.

In the year that immediately followed the organization of our society much work was done; and many of the topics above mentioned, with others, were discussed at our general, annual, and department meetings. The first General Meeting for papers and discussions was held in Boston, Dec. 27 and 28, 1865, at which eight papers were read; the second General Meeting was a conference of the managers of reformatories, held in Boston, Westborough, and Lancaster, Mass., on three success-

ive days, the 5th, 6th, and 7th of June, 1866, at which eight papers were read. The second Annual Meeting was held at New Haven, Oct. 9 and 10, 1866, at which fourteen papers were read. Two Department meetings, at which eleven papers were read, were held in Boston in January and March, 1867; and at the third Annual Meeting, Oct. 9, 1867, five papers were read. At the first of the three General Meetings which we have held in New York, Nov. 19 and 21, 1867, twenty-eight papers and addresses were read. So that in the first two years of its existence no less than seventy-five papers were read before our Association, — a greater number than in any two years since. During this period of formative activity, our President was Prof. Rogers, who still permits us to call upon his experience as Chairman of one of our Departments. The services of our Secretaries were gratuitous, and our means of publication were very limited.

In 1868–9, under the Presidency of Dr. Eliot, a salaried Secretary, Mr. Henry Villard, was for the first time engaged; and the work of the Association was both extended and modified. It was then that we began to publish the Journal of Social Science, the first number of which appeared in August, 1869, and contained the papers read at the general meeting at Albany, Feb. 17 and 19, 1869. The second number appearing in April, 1870, contained the twelve papers read at the general meeting in New York, Oct. 27–29, 1869. The third number contained the Lowell Institute lectures on Social Science in the spring of 1870; and the fourth number, the papers read at the general meeting in Philadelphia, Oct. 25, 1870. During these three busy years, 1869, 1870, and 1871, besides these four numbers of the Journal, we published two valuable manuals, both the result of great labor; one on "Free Public Libraries," and the other a "Handbook for Immigrants." To the untiring devotion and industry of Dr. Eliot and Mr. Villard during this period, our Association owes much of its past reputation and present usefulness. It was at this time, also, that we secured the services of Mr. James M. Barnard as Treasurer; and for a single year, under his vigorous financial administration, and the stimulus of Mr. Villard's exertions, the income of the Association rose to something near $10,000, including a special fund for the publication of the "Handbook for Immigrants." These efforts could not be maintained during the succeeding years, 1871, 1872, and 1873; and at various times within that period the question of discontinuing the Association was seriously discussed. Under the impulse given by the late Prof. Agassiz, by Mr. Barnard, and the other active members, this result has been avoided; and we seem to have entered once more upon a busy and prosperous career. The publication of our journal, which ceased for two years, was resumed in October, 1873, when the fifth num-

ber appeared; and two more numbers have been issued since the General Meeting in New York last May. In all we have published some 2,000 pages within the nine years of our existence, while the papers read at our nine annual and eight general and department meetings, and published elsewhere than in our journal, probably amount to 2,000 pages more; or an average in all of some four hundred pages yearly contributed by our association to the literature of social science.

Little as we are disposed to exaggerate the value of these contributions to the knowledge, and to the social, philanthropic, and political activity of our country, we have abundant reasons for thinking that what our Association has said and done has borne some fruit in these nine years. The civil service reform, so far as it has gone forward at all, has done so at the original suggestion and under the practical direction of our members, among whom may specially be named our former President, Mr. Curtis, and his successor on the Civil Service Commission, Mr. Dorman B. Eaton, whom you will soon hear in relation to it. In art education we have done our share; and this Association can perhaps claim, as confidently as any body of persons, the credit of setting on foot the movement which has led to the establishment of the Boston Museum of Fine Arts, now somewhat conspicuous for its unique exhibition of paintings of the Spanish school, and as the recipient of the art collections made by the late Senator Sumner.

The recent efforts to reform our methods of taxation, both local and national, which have become a general and deliberate movement in all parts of the United States, may be said to have begun with members of our Association; and this agitation has been carried forward more intelligently and persistently by our honored President (Mr. D. A. Wells), than by any other economist. The efforts put forth from time to time, since the civil war, to restore our currency to a sound condition, have been cordially furthered by the Association, and several of our members rendered timely and effectual aid, in the struggle of 1873–4, against the mischievous policy which would have "inflated" still further the paper currency of the nation. That crisis is happily over: the schemes of the inflationists are defeated; and the practical question now before the country is, how best to resume specie payments, and after how long an interval. May we not congratulate the Association for having not only deserved well of the country by what its members have said and written on this matter, but also by what they have done? "It is glorious," cried the Roman Senator, "to serve the Republic by deeds; even to speak well in that behalf is not a worthless service." *Pulchrum est bene facere reipublicæ; etiam benedicere haud absurdum est.*

A lively writer in "The London Examiner," who lately reviewed

the book of our countryman Mr. Nordhoff, on "Politics for Children," makes a few remarks on English education which may be quoted as having some pertinence in America also. He says, —

"In our most advanced schools there is often a class of what is called social science. The name is wide enough to include a good deal; but on inquiry it is generally found to mean plain political economy, with a dash of ethics to suit the taste of the teacher. It is often felt that the science of wealth by itself will give the pupils any thing but a true impression of their country. In order to counteract this, little sermons are introduced amongst the teaching, such as the benefit to the working classes of hospitals and other benevolent institutions. But either the pupils believe in the science, and laugh at the moral; or, what is more likely, they believe in the teacher, and regard the science as moonshine. The real points most important to keep in view — that the science of wealth is purely hypothetical, and that it only deals with one aspect of society — are entirely missed. What is wanted to balance the over-prominence given to wealth in political economy is not a series of unauthorized contradictions, but another branch of social science which shall bring these matters forward. This branch is undoubtedly politics. Without going into controvertible topics, much might be explained of the form of our own and of neighboring governments, of the different methods in which the people have a voice in the government, of the different ways of making and enforcing laws, of central and of local government. Such lessons would show that a country's prosperity depends on something besides the production of wealth and a good system of taxation, or even a flourishing foreign trade."

It has been the effort of our Association, to supply lessons of this kind, and of more varied and wider application, not so much to the pupils in our schools and colleges as to the general public. But it is gratifying to observe that the instruction of the young in social science is beginning to be undertaken by such writers as Mr. Nordhoff, Prof. Walker, Prof. Sumner, Prof. Perry, and many other competent writers and lecturers. There is a wider range given in this country to what is known as political economy, and the connection of this with political science is more practical here, one would say, than in England or in most European countries. Mr. Nordhoff's present researches among the people of our Southern States are likely to prove no less valuable contributions to political and social science than the formal treatises of himself and others. If history is philosophy teaching by example, it is none the less true that the material of history to-day existing in the condition of our country is also social science in a concrete form. Some of the lessons to be drawn from this abnormal relation of one portion of the United States to the other have already been pointed out in the debates of yesterday. These, and others fully as important, remain to be searched out, expounded, and illustrated by all who would promote either social science or national prosperity.

Another question which has come to be a political issue in many of the States, and lately in Michigan, presents several aspects in which it may well engage the attention of the students of social science. I refer to the regulation by law of the sale of intoxicating liquors, — a perplexing subject, concerning which the interests of trade and those of public morality seem to be brought continually into conflict, and a conflict, too, that is apparently as far from being fairly settled now as when it first began. Our Association has hitherto refrained from treating the temperance question, except incidentally; but the recent legislation of Michigan concerning it presents the matter in a new light, and may perhaps open the way for a more satisfactory disposal of it than has heretofore seemed practicable. On this point, and in regard to the enlightened legislation of Michigan relative to penal and charitable establishments, the education of poor children, the sentence of criminals, the conditions of their pardon, &c., we have had pleasure in hearing what has been said by members of the State government in the Conference of Charities, and elsewhere. And we congratulate the State of Michigan on its attitude in regard to these important matters, on the intelligence and practical ability of its public officers, and particularly on the profound wisdom and good sense of a citizen of Detroit, Mr. Brockway, which has given this city a just renown throughout the United States, for the treatment of convicts and the repression of crime.

The attempt to reform prison discipline in America and in the whole world — a slow and arduous undertaking, in which young men may grow gray, and those of middle age may die before they see accomplished the good which they seek — has been from the first aided by our Association. It was in the first year of its existence (1865), that our distinguished associate, Dr. Wines, in company with Prof. (now Judge) Dwight, both of New York, made that tour of the American prisons which prepared the way for the first general movement that has been made for twenty years to improve the condition of these prisons; and it is to Dr. Wines that we owe the convening of the Cincinnati Prison Congress of 1870, the formation of the National Prison Association in 1871, and the assembling of the World's Prison Congress at London in 1872. Our latest publications show him still engaged in this great work, making arrangements, now in America and now in Europe, for gathering together a second International Congress in 1877, at Stockholm. For this work he has the commission of our Government, and to this he looks forward as the completion of the task he has assigned himself. The influence of the agencies he has either set in motion or brought into active unison are working a deep and powerful change in the direction which he has given

them. The beneficial results we see in this and in many other countries. In the United States, where crime increases fast, and where the administration of justice is by no means what we could wish, there is at this moment, notwithstanding all that has been done in Michigan and elsewhere, greater need of a wise and vigorous prison system than anywhere in the civilized world. This fact has had its weight in determining the Association to give what time and effort it could spare to the prison question.

Anther question, closely allied to this, and even more important, — that of public charity, — has constantly found a place in the discussions of the Association, which has succeeded, during the past year, in bringing into closer acquaintance and fellowship with each other the public officials in different States who have this matter in their charge. A Conference of the State Boards of Public Charity, invited to meet in New York last May, resulted in much active work. This will be continued, and its scope enlarged, by the Conference of yesterday and to-day, in which delegates from boards in New York, Pennsylvania, Massachusetts, Michigan, Illinois, Rhode Island, and Wisconsin, have cordially united, and have debated interesting topics. Several committees appointed at this and the preceding conferences are now engaged upon investigations that cannot fail to make more intelligible the problems that pauperism offers for solution in America. In this connection I would name with high praise the laborious inquiries into the causes and hereditary transmission of pauperism, now going on under the direction of Dr. Hoyt and the other members of the State Board of Charities in New York. Other boards and our own newly organized Department of Social Economy are working in the same direction. From all these sources of information, we gather the general and consoling statement, that, unlike crime and insanity, pauperism has not been increasing beyond the due ratio of population in the country at large; and that some of its former causes have been partially removed, or checked in their operation. On the other hand, new causes are developed, — the unnatural condition of our currency being one of these; and the past winter has added largely, in many of our States and cities, to the public expenditure for the relief of the poor. This being the case, it is with great satisfaction that we have witnessed the renewed and increased efforts of enlightened philanthropists to meet and turn back the advancing tide. The name of one of our members, a lady of New York, Miss Schuyler, deserves to be specially mentioned in this connection. With the cordial help of many persons, yet impelled more by her own energy and humanity than by any co-operation from others, Miss Schuyler has organized a society, — the State Charities Aid Association of New York, — which both

teaches and exemplifies a method of combining official with voluntary work for the relief of the poor, that cannot be too warmly commended. It is also worthy of mention, how strong is the inclination in other cities and States to imitate the example of Philadelphia in forming associations on a sound financial footing to promote the building of homes for the people, — one of the best means of preventing pauperism and of increasing the safety and prosperity of the community.

In the Department of Education much has been done, directly or indirectly, by our Association since 1865, to call attention to what our country needs, and point out practical ways of attaining thereto. Art schools and art museums, public libraries, the best system for colleges and universities, the health of pupils in public schools, the instruction of factory children in half-time schools and otherwise, the methods of teaching deaf-mutes and blind persons, the proper methods of school inspection, — all these, and many other educational questions, have received attention in the past year or previously. To all these interests, the death of our noble associate Prof. Agassiz has been a great loss, for which we find some slight compensation in the strenuous and successful efforts since made to complete the special work to which he so long devoted his great powers, — the establishment in Massachusetts of a national museum of zoölogy, and a school of natural history.

It was among the last wishes of Agassiz, that the broader work of our Association (to which he pledged himself so soon as his own special tasks had been accomplished) should be carried forward with energy. He was particularly in favor of the formation of local societies, even though they should consist of but two or three members, in all the principal cities of the United States, to consider the social science problems arising in each locality, and to utilize the talents of men residing at a distance from each other. Several of our local vice-presidents were elected upon his nomination; and it was at his instance that they were designated as "to preside over the affairs of local sections." Carrying out his ideas as they understood them, the Executive Committee, not long after his death, endeavored to frame a plan for the regular establishment of such "local sections," under the various names of branch associations, local departments, and corresponding committees. After much correspondence and discussion, and not without wide divergencies of opinion among the members of the committee, the brief plan was adopted, which was printed in Journal No. VI. (pp. 2, 3), for the information of our members, and has since been adopted in a modified form. Under it several local organizations have since been made; one of which, in this City of Detroit, has justified its establishment by the excellent work it has done in the past year. It is a matter of much consequence, that a persistent attempt should be

made to establish local departments and associations wherever they can be formed. So far from weakening the parent society, as some have feared, they will be found to strengthen it by giving us more members, a firmer hold on the people of the whole country, and a larger audience for what we may say and publish. For example: the Philadelphia Branch Association formed in 1870, which now has half as many members as we have, not only supplies us with its own publications, which are of much value, but gives a ready circulation to ours. I may add that this same Association, at a meeting of its Executive Committee on the 8th of April, invited our Association to hold its general meeting for 1876 at Philadelphia during the Centennial exhibition of next year.

The nature of the work done by the American Association since the last general meeting in New York will partly appear from the two recent numbers of our journal, containing some four hundred and twenty pages, and including nearly all the papers read at that meeting. An extensive correspondence has been kept up with all parts of the country, and many valuable documents have been received and distributed. Frequent meetings of the Executive Committee have taken place; of those members not present at these monthly meetings, nearly all have corresponded with the Secretary on the business of the Association. The office, No. 5 Pemberton Square, Boston, is kept open daily during business hours, and is a centre for much social science work of various kinds. During the last year we have been obtaining subscriptions to the Journal of Social Science from libraries and individuals, in order to dispose of the surplus copies which are printed above what our own members and those of the branch association will need. A small permanent subscription list of this kind would enable us to issue the Journal with more regularity. Thus far we have been quite successful in this undertaking; and if each member of the Association would secure us but a single subscriber, we should be placed beyond the necessity of raising in each year by subscription a special publication fund. The number of our members has considerably increased during the last year, and the response to our increased activity has been gratifying; but much still remains to be done before the finances of the Association are placed on a footing wholly satisfactory.

The relations between our Association and that long established for a like purpose in Great Britain are becoming closer each year. At the British Social Science Congress of 1873, we were well represented by Mr. Hamilton A. Hill, then one of our directors; at the Congress in Glasgow, 1874, by two American papers, furnished in response to an invitation from the British Association, which were read at Glasgow, and printed in the volume of transactions.

Other organizations for the promotion of social science in America, such as official boards of health and of public charity, the American Public Health Association (which held a very successful meeting last November in Philadelphia), the American Medical Association, the National Prison Association, the Associations for the Investigation of Insanity, the Care of the Inebriates, the Instruction of Deaf-Mutes, &c., are ready to co-operate with us; and the Young Men's Christian Association, through their representatives in New York, have assured us of their wish to do the same.

It has been our hope that we might serve, in some sort, as a connecting link between these organizations, so various in their aim and their methods; that, without trenching upon the special ground of any, we might interchange good offices with all, since all are working for the common good and within the same broad field which we cultivate. And we have with us to-day members of nearly all these Associations, as well as of the official bodies already mentioned, whose special function it is to consult about public charities and the public health. An important feature of our general meeting in New York last year was the conference of boards of public health; and the publication of the papers prepared in that connection has been of real service to the community. Not less valuable have been the publications of these boards in their own States, those of the Michigan Board being entitled to warm praise for their practical no less than their theoretical value. I ought not to forget the pioneer organization in work of this kind, the New York City Board of Health, which has so long had the benefit of the skilful, unwearied intelligence of Dr. Elisha Harris in its Bureau of Registration. To such competent and diligent experts as Dr. Harris must we look for the gradual accomplishment of the wish of Dr. William Farr, the veteran Registrar-General of England, as expressed in a recent letter to our Association. Dr. Farr says, —

"I would willingly send you a paper on the interest the whole world feels in accurate returns of the births, deaths, and marriages of the United States, with such full particulars as are given by your younger sisters in Australia. You can only get this by one uniform system of registration for the whole Republic, here one and indivisible. I speak from a long experience, and feel that your sanitary and social progress depend very much on a registration as general and uniform as your census. The census returns of births, deaths, and marriages are very imperfect. You will in my absence, I hope, get up a vigorous action on this question in your Association. By obtaining an accurate record of birth (with age of parents), marriage (both ages), and death (with cause of it) of every American citizen, you will confer the greatest benefit on your country, and win for your Association a renown as lasting as the Republic itself."

It will doubtless be the pleasure of our Association, which numbers among its members such authorities in registration as Dr. Farr, Dr. Jarvis, Dr. Harris, Dr. Baker of Michigan, and Dr. Snow of Rhode Island, to carry out, as far and as fast as possible, the proposal of our English correspondent.

Among the topics of public interest which our Association has investigated during the past year, has been one with which the noble name of Florence Nightingale was long since connected in England, and which American ladies, inspired by her example, and moved by the suffering they saw about them, have been meeting in a practical manner in the cities of New York, Philadelphia, and New Haven, perhaps also in Detroit. I speak of training-schools for nurses, in connection with hospitals and other medical charities. A paper on this subject was read at our last October meeting in Boston, by Dr. Charles P. Putnam, and has been widely circulated. It described briefly the school established by Miss Schuyler and her friends at the Bellevue Hospital in New York, that established at the Massachusetts General Hospital in Boston by Miss Cabot and other ladies, and such other schools for nurses as were then known to exist in the United States. During the past winter these schools have gone forward prosperously, have increased the number of their pupils, and have learned by larger experience how to adapt themselves to the necessities of American cities. They will be found indispensable, as we believe, in all these cities; and they afford one of the most beautiful examples of the application to human necessities of both the art and the theory of what we call social science.

Perhaps I have already detained you too long, ladies and gentlemen of the Association, in these details and reminiscences of past labors, these propositions for future undertakings, which I conceived it my duty, as Secretary, to lay before you. But the study of social science leads us inevitably into a labyrinth of details, and involves much that calls for patience, perseverance, and method. Our specialty — or rather our universality, as it is the highest and most comprehensive of the sciences — is also, and for that very reason, the most perplexing and multifarious. We cannot expect universal attention, even when what we propose is for the universal good; we must be prepared, in our career as an Association, for much neglect, misapprehension, and prejudice. We must expect, also, to make mistakes in a pursuit so new, and as yet so little understood or practised. But no person can have even a glimpse of what social science really involves, without seeing, and with joy recognizing, how closely, how continually, it connects itself with all that makes existence on this earth sweet or even tolerable. "It is easy to die," said the stoic, "if there be Gods:

sad to live if there be none." Our science has this advantage, as I conceive, over many of the physical sciences, that instead of drawing away the soul of man from the contemplation of spiritual things, and of the mutual dependence of mankind upon each other, social science, in all its aspects, stimulates us to a deeper sympathy with human weakness, a nobler conception of human possibilities, a more intimate reliance on that love and wisdom which are dimly seen or shine with heavenly light at the end of every vista in this brief journey of life.

THE PROGRESS OF INTERNATIONAL LAW.

By James B. Angell, LL.D., President of the University of Michigan.

Read at Detroit, May 13, 1875.

The object of this paper is, to state succinctly the gains which have been made in international law since the time of Grotius, to glance at the main obstacles which oppose its further progress, to call to mind the encouraging facts in its present state, and to inquire what is indicated by the present apparent drift of thought among statesmen and publicists concerning changes in the law.

I. In reviewing the two centuries subsequent to the publication of Grotius' great work on Peace and War, I at once avail myself of the aid furnished to me by the summary which that high authority, Henry Wheaton, gives in his History of the Progress of the Law of Nations, of the changes wrought in international law between the Peace of Westphalia and the Congress of Vienna in 1815. The most important of the changes he names are as follows (I abridge his language):—

1. The general adoption of permanent missions, and the recognition of diplomatic privileges.

2. The exclusive dominion over particular seas was abandoned, and the right of search limited to periods of war.

[Could Wheaton properly say that in 1815, or even in 1841, when his work was published, England had abandoned the right of search, or as she called it the "right of visit," in peace? Not till her treaty of 1862 with us, or at best until the abandonment of the English claim by the Earl of Malmesbury, the British Minister of Foreign Affairs in the House of Lords, July 26, 1858 (see Halleck, p. 266), can this remark of his be unqualifiedly true.]

3. The universal right to use the Scheldt, the Rhine, and other great European rivers, was established as a principle of law.

4. The colonial monopoly was nearly ended; and so the question was settled as to the right of neutrals to enjoy in a war a commerce prohibited in peace.

5. The slave trade generally reprobated, though not universally abolished in fact or in law.

6. The laws and usages of war improved, and an advance made in securing privileges for neutral commerce.

7. The unqualified accession of the States of Western Europe to

the law of nations, and the tendency of Mohammedan powers to adopt it.

8. In general, international morality and international law both advanced.

These are all unquestionable gains. The right of intervention to preserve the balance of power, Wheaton reported as undetermined. But Grotius flatly denied any such right. And whether we judge the practice of intervention by its historical results, or on ethical grounds, it may well be deemed an open question whether the world has gained by the abandonment of Grotius' doctrine.

Wheaton might have named other improvements hardly less important, which have arrested the attention of other writers.[1]

For example, Grotius asserts the right of a belligerent to demand liberty of passage over neutral territory,[2] which, in the interest both of belligerents and of neutrals, is now denied.

Again, he holds that a nation is bound to punish or deliver up criminal refugees, and says that in practice the rule is specially applied to political refugees.[3] Nations do not now punish criminal refugees, deliver them up only by special treaty or compact, and do not deliver political refugees even in this case.

The two centuries of which Mr. Wheaton has treated were then fruitful of most beneficent changes in the law and in the spirit of obedience to it.

II. We come now to ask what gains have been made since the Congress of Vienna?

I answer: —

1. The right of search has been practically settled by treaties so as to be removed from the arena of debate.

2. All the great rivers of the civilized world have been opened: the La Plata in 1853, the Danube in 1856, the Amazon in 1866; the dues on the Elbe and the Scheldt abolished; and the principle is fully established, that the inhabitants on the upper waters have a right to use the lower waters of a river.

3. The system of international law has been extended not only to Turkey, but also in some degree to Japan and China. Christianity no longer marks the boundary of its domain. Its territory is as broad as the territory occupied by civilized man.

3. The entrance to the Baltic is free (since the payment of the sound dues to Denmark); and the Black Sea is open to merchant vessels.

5. There have been some important ameliorations in the laws pertaining to war.

(*a*) The citizens of one State are not regarded as the enemies of all

[1] Ed. Rev., April, 1843, article attributed to N. W. Senior.

[2] Lib. II., Cap. 2, § 13.

[3] Lib. II., Cap. 21, §§ 3–5.

the citizens of the State at war with the first. Even Chancellor Kent, 1, Lec. 3, p. 66, sets forth the old and harsh doctrine. The principle that war is waged between *States* is now emphasized.

(*b*) The doctrine of "free ships, free goods," is substantially adopted.

(*c*) Privateering is practically abolished. Though we have not accepted the Declaration of Paris, it is probable we shall commission no more privateers. If we have occasion to resort to our "militia of the sea," we shall, I think, enroll them in the volunteer navy, as we did in our civil war, and thus gain most of the advantages and shun most of the evils of the system of privateering.

(*d*) The doctrine of effective blockade is defined with tolerable clearness by the usages in our war, and is established. Pacific blockades, notwithstanding the advocacy of Charles Sumner and Heffter, are remanded to the limbo of paper blockades.

(*e*) The confiscation of private debts, though resorted to by the South, and authorized by our government in the civil war, is altogether exceptional in modern times.

(*f*) Though in the excitement of the actual strife there have been in many recent wars scenes worthy of mediæval barbarism, yet, on the whole, it may fairly be claimed that there is more restraint than formerly on the passions of combatants, and that there is a gradual approach towards the standard of action proclaimed in our codes. Especially has humanity won a marked victory in securing help for wounded and sick prisoners of war. The Geneva Congress of 1864 gave expression to the nobler feelings of modern times on that subject; and its spirit has been felt in all the camps and military hospitals of Europe.

III. The obstacles which have been, and still are, in the way of improvement in international law, are grave.

1. There is difference of opinion as to what are the sources of the law. The Continental publicists, for instance, are inclined to attach much less weight to the decisions of admiralty courts in making law, than the English and Americans. The language of treaties which have not always been kept, or which are at variance with other treaties, the wavering usage of nations, the conflicting views of publicists, furnish much uncertain and debatable ground for those who are determining law. Some minds are constitutionally inclined to attach much weight to historic precedents. Others are disposed to stretch law, as fast and as far as possible, toward their ethical standards. As there is no council authorized to make statutes for nations by formal enactment, and no judiciary empowered to decide what principles are to be taken as law, and what interpretation shall be put on the language of treaties and of treatises, the embarrassments in improving the code are serious.

2. Again, a grave difficulty is sometimes found in the disposition of nations to lower the standard of action when dealing with weak States, and so to make troublesome and dangerous precedents. Unhappily there is a large stock of these ready at any time to be pleaded against the requirements of an advancing international morality.

3. And, still further, what may be termed a narrow national selfishness not only governs diplomatists in their negotiations, but too often colors the writings of publicists, and reduces their work from its true dignity to the low level of special pleading. When those writers whose function, in part at least, should be to hold before the world the ideals and the demands of justice, commit themselves to one-sided and partisan views of great questions of law, they set up a formidable barrier in the path of its progress.

If, moreover, we reflect upon the supposed antagonistic interests of nations in their varied intercourse, the wonder is not that the system of international law has advanced so slowly, but that it has made so marked progress as we have noted.

IV. For, after giving due weight to the obstructive power which these obstacles are now exerting, the present aspect of affairs is very auspicious for the speedy improvement and more unqualified and hearty recognition of international law. Let us glance at a few of the encouraging facts: —

1. Our review of the gains already made shows us, that, important as were those which Mr. Wheaton credited to the two centuries between Grotius and the Congress of Vienna, the half-century since the Congress of Vienna has brought us as many and as signal gains as that whole period of two hundred years.

2. We have the solid fact, that all civilized nations now profess to obey international law, and law not made in the interest of one strong nation, but law inspired by justice. If the course of a nation is unjust, it is not avowedly taken in defiance of this law. The offender does homage to the law by arguing that the action taken is in accordance with law. If a shrewd State desires to enter on any new course, it seeks by some means to get a change in the law recognized by other States, or by publicists. Russia is to-day suspected of aiming to manipulate international Congresses so as to secure an expression in favor of certain changes she desires in the laws of war. This fact, if it be a fact, is a recognition of the authority of international law in our days.

3. I think it may fairly be claimed, that publicists are more and more lifting themselves in their discussions above the inspiration of merely national feeling, and are considering their great themes with the spirit of judicial impartiality. Phillimore does not hesitate to condemn in vigorous language many acts of the British Government; and

no one abroad is assailing the Three Rules of the Washington treaty, or our doctrine of continuous voyages, more vigorously than our own Gov. Lawrence.

4. I think that a substantial advantage is secured in the relative increase of the international legislation on subjects belonging to the peaceful relations of States as compared with those belonging to the belligerent relations. Compare a modern treatise with that of Grotius, and mark how much larger space is devoted by the modern writer than by the older, to the questions of navigation of rivers, use of harbors, privileges of fishery, expatriation and naturalization, extradition, patents, trade-marks, &c.; topics both in public and in private law. Upon most of these it is easier to reach terms of agreement than upon subjects which excite the passions of nations; and agreement on these helps prepare the way for agreement on more difficult subjects. The presumption, too, now is, that the normal state of mankind is peace, not war: the legislation therefore treats war as exceptional and abnormal.

5. And an harmonious understanding upon these peaceful subjects, and perhaps on some of the subjects belonging to war, is made more easy and certain by the increasing intelligence of the citizens of modern States, by their larger participation in the conduct of their governments, and by the closer commercial and social connections which are secured by our modern facilities for intercommunication.

6. There is a disposition to shape negotiations between particular nations, so as practically to facilitate legislation for the world. The Declaration of Paris was thus presented to all nations, and adopted by most of them. Great Britain and the United States made arrangements, in the treaty of 1871, to submit the "Three Rules" to other nations, and to invite them to accede to them. The gain of a few nations thus almost inevitably becomes the gain of others, if not of all.

V. In addition to these recognized facts which are so prophetic of good, there are certain other important facts — perhaps I might better say tendencies — which are attracting the attention of publicists. Concerning the value of their influence there is much difference of opinion. Let us examine them, and see what helps and what hinderances, if any, they present to the progress of international law.

1. There is an increasing tendency, we may say a pretty general practice of publicists, to give, in their formal works, expositions not only of the law as it is, but to a greater or less extent of the law as in their opinion it ought to be. They not only tell us what usage and the ethical sense of nations have established as doctrines of the law; but they judge those doctrines by what they deem a proper ethical

standard, and suggest what modifications of those doctrines, if any, are required by a due regard for justice and right.

These writers are criticised by some, as pursuing the unscientific *a priori* method of Puffendorf, as being sentimentalists rather than students of jurisprudence, as assuming with self-sufficient complacency to evolve legislation for the world out of their inner consciousness. They fail to set forth, it is alleged, in a sharp, clear, positive way, what is accepted as law by the world; and, by mingling historical statement with their own speculations and moralizings, even add to the obscurity, already sufficiently great, in which a considerable portion of the law is now hid.

I think this habit of modern publicists to aim at something more than the declaration of the law as it is, to seek for the moral grounds on which, if at all, it is to be justified, and to suggest practicable improvements in it, is wholesome and helpful. It should be indulged in with sensible moderation. There is no necessity for obscuring the statements of the positive law by the criticisms of it which one may see fit to make. One would hardly think of mingling a More's Utopia with a formal treatise on the Rights of Nations; but the temperate suggestions of men so penetrated with the spirit of Christian morality and justice as Phillimore or Woolsey encourage and hasten the development of right principles. It is well for the eye of the diplomatists to be arrested and held by the torch of truth which such men lift up to them for the conduct of affairs. The voice of these unbiassed thinkers will command some respect, and in propitious circumstances will be heeded. There is no necessary conflict between what is called the historical school and the ethical school of writers. Allegiance to both is possible and commendable. As the work of publicists is one of the recognized sources of international law, it may with justice be urged that it is incumbent on them to set forth and urge such charges as they may deem salutary. At any rate, it seems clear that the spirit of most of the present generation of expositors is one which promises good results.

2. The question of framing a code of international law is one which is now earnestly engaging the attention of many distinguished publicists. A goodly number are, by zealous private labor and by public co-operation, striving vigorously to secure the completion and adoption of a code. Leading English writers and some Americans regard the plans as chimerical. It has been much debated, whether any thing would be gained by codification of municipal law, or of any part of it. Most of the arguments *pro* and *con* are as applicable to the codification of international as of municipal law. A full half-century ago, the learned German, Savigny, exhausted the arguments against the codify-

ing of the law of the State, in his work on "The Vocation of our Age to Legislation and Jurisprudence." [1] The most important objections which he advanced, and which may be thought to lie against an international code, are the following: —

(*a*) A code is necessarily incomplete, and cannot provide for cases in the future. As it is impossible to foresee the new circumstances which may arise, it is impossible to provide for them by specific rules.

(*b*) A kindred objection is, that a code is inflexible, and that it necessarily perpetuates the ideas of the past or the present, and thus binds the future captive in the fetters of antiquated notions and rules. It is not plastic, does not easily shape itself to meet new exigencies.

(*c*) It is maintained, that any nation or age which has the ability to perform the very difficult task of framing a code does not need one. A judge familiar with the common law does not require a formal codification of it in order to administer it. So the principles of international law which jurists and publicists are sufficiently agreed on to incorporate in a code which they could accept are not numerous, and are well understood. To codify them would be at best a superfluous work.

(*d*) It is thought by many to be almost, if not quite impossible, to make a good code of the rules and principles in any branch of the law. Such persons doubt whether any thing has been gained in the administration of justice by the use of the codes which have been adopted in some nations. The annotations and interpretations of the French codes already rival in intricacy and voluminousness the reports of English courts.

(*e*). In addition to these arguments which have been pressed against the codification of any kind of law, it is urged in opposition to the codifying of international law, that the governments of the world cannot now be brought to adopt any code. The movement is therefore at least premature, not to say superfluous.

(*f*) And furthermore it is contended, that if they could be persuaded to adopt a formal code, and to be held strictly to all its requirements, there must be so many erroneous and incomplete rules, and so many terms and clauses susceptible of various interpretations, that controversy, anger, and possibly strife, would be fostered rather than prevented by the adoption of the code.

On the other hand, it is affirmed, and especially by Mr. Austin, that a code is not necessarily more incomplete, but may be made less defective, than judiciary law, and can quite as well promise for the future. If this is true, the advantages of codified law over treaty law may be more emphatically claimed. The latter is uncertain, discordant, and incomplete.

[1] Vom Beruf unserer Zeit für Gesetzgebung und Rechtswissenschaft, 1814.

The objection that a code is inflexible may be met by the proposition to accord to it a generous interpretation, as Judge Story[1] proposed, in advocating the codification of the common law of Massachusetts, that the code should be interpreted and applied as a code of the common law, not as a code of mere positive or statute law; that it should be deemed an affirmance of what the common law then was, not as containing provisions in derogation of that law and therefore subject to a strict construction. So the international code might be interpreted with a wise regard to the sources of the law, and the consciences of nations.

In answer to the other objections noticed, it may be summarily pleaded that the rules which Dr. Lieber proposed for our armies, and the codes of Bluntschli and Dudley Field, furnish a fair presumption that an excellent international code can be drafted; that some nations, if not all, may be led to adopt it; and that at least the misinterpretations and misunderstandings could not be more frequent than those which spring from treaties, while, in the opinion of the advocates of a code, they would be fewer.

It is interesting to notice that a large proportion of the Continental publicists are disposed to favor a code, while the English are averse to it. This is doubtless due in some degree to the fact that the former are trained in the Roman law, and are familiar with codification in their municipal law. I judge that the proposal to unite upon a code meets with more favor in this country than in England, though it by no means commands a unanimous support here. I see no evidence that in any country the diplomatists and statesmen, who are actually charged with the direction of public affairs, are ready to sustain the plan with heartiness. I confess I see no immediate prospect of the adoption of a code by the nations of the world.

Are, then, the labors of the excellent men on both sides of the Atlantic, who are promoting the plan of codifying international law, useless? I think not. On the contrary, they are worthy of encouragement. Some admirable results must flow from them.

(*a*) The very attempt to make a classification and statement of the principles in which nations are substantially agreed gives sharpness and accuracy to the general apprehension of those principles. It helps us draw the line clearly between what is settled and what is unsettled. It assists in giving us a clearer perception of the defects in our law as it is.

(*b*) If eminent publicists, whose names give weight to their opinions, should be of accord upon such a statement of principles established,

[1] Story's Miscellaneous Works, p. 716.

and further upon such a scientific statement of principles which, in their opinion, ought to govern nations in their intercourse, their code, consisting of these two parts, could not fail to exert a large influence in ameliorating international law. Rulers in times of excitement might heed them but little; but the ideas of right and justice, held steadily up before the world by men who are not visionary sentimentalists, but jurists and scholars of recognized talent and learning and character, must in due time make themselves felt. A code drawn and commended by only one man, however eminent, will avail but little; but if it is brought before a body of experts in international law, men of different nations and schools, and sanctioned by them, it will speak with an authority which will not be disregarded. I see no other method by which wholesome modifications in the practices of nations can be so readily and judiciously suggested, and so forcibly commended. If it is proposed to prepare a code to which nations are in council to submit themselves under pains and penalties, the project must at present be deemed chimerical, and the time spent on it is lost; but if the codifiers are simply making an orderly, scientific statement of recognized facts and principles, and coupling with it a similar statement of changes which they deem advisable on the grounds of right, justice, or general expediency, and asking the approval of these statements by the moral sense of the world, they are not only engaged in a feasible work, but in one which cannot fail to bless mankind.

3. In addition to the helps to be derived from codification, it is also expected by many that arbitration is to be much more largely employed than heretofore in the adjustment of difficulties between nations. Attention has been concentrated on this method of healing discords by the success of the Geneva tribunal in settling the questions growing out of the Alabama claims. The enthusiasm which was excited among all lovers of peace by the happy results of that arbitration not unnaturally led some persons to cherish extravagant expectations concerning the future use of arbitration. Their language would lead us to suppose that they almost indulged the hope that wars were now to cease, that resort to arbitration was henceforth to supplant the dreadful appeal to arms.

But sober reflection compels us to believe that the field for arbitration is limited, that this remedy cannot prove efficacious in preventing all wars, and that a permanent court of arbitration cannot succeed. Arbitration is by no means a new remedy. It was used by the old Grecian States with quite as much frequency as it is likely to be used now. In mediæval times it was very common to submit international questions to learned professors and jurisconsults for decision. But there are certain questions, and those the most vital, which no nation

would or could submit to arbitration. Such, for instance, are questions of national honor or insult or independence. Even Prof. Mancini, one of the most enthusiastic advocates of arbitration, in the brilliant speech which he made to the Italian Chamber of Deputies in November, 1873, just before they passed a unanimous vote in favor of a frequent resort to arbitration, expressly disavowed the intention of applying the principle to "questions of life and death, when the existence or the independence or the national integrity, in a word one of those absolute and fundamental rights which nature recognizes in all peoples, and which we cannot in thought separate from the very essence of any national life, is at stake." I suppose it is in the spirit of Prof. Mancini's statement of the scope of arbitration, that the Diet of Sweden and the United States Congress unanimously, and the British House of Commons by ten majority, adopted resolutions encouraging the appeal to arbitration in the settlement of international difficulties. Several of our treaties, as, e.g., that of 1858 with Chili, that of 1866 with Venezuela, and that of 1868 with Mexico, make provision for the proper use of arbitration. The learned Dr. Goldschmidt, in the paper presented by him at Geneva last year to the Institute of International Law, well said that "no tribunal could have prevented the contests between England and France in respect to the English claims to French territory, nor those of France and the house of Austria and Spain for the ascendency in Italy, nor the thirty years' war, nor the wars between Austria and Italy, between Austria and Prussia, between Germany and France, nor the great war in America. Neither Louis XIV. nor Napoleon I. would ever have consented to submit to arbiters their claims to domination over the world."

A general standing court of international arbitration, appointed to administer a code, or to try cases by accepted law, seems impracticable. Dr. Woolsey, in a recent number of "The International Review," has well stated the objections, even to so ingenious a scheme as that of Mr. Dudley Field, the best which has been suggested. Upon questions which are not vital, upon claims for damages, upon a disputed boundary-line, when the settlement of it does not involve too much (as in our San Juan case), two nations may as the cases arise, either by treaty stipulation, or in accordance with recognized usage demanded by the moral sense of the world, call in arbiters. But this act presupposes a desire for strict justice, and an absence or control of passion, which are not always found even in the early stages of a controversy. I think great good has been done by the Geneva tribunal, by directing attention anew to this peaceful remedy, and by stimulating four great national legislatures to record their desire that it should be employed whenever practicable. These declarations, and those of many publicists.

who have anew commended arbitration to public notice, are salutary. It is well, however, that we do not expose ourselves to disappointment by expecting more from it than in the nature of things it is fitted to accomplish.

4. Finally we must notice, as one of the characteristics of our time, the very marked tendency of publicists, and to a certain extent of diplomatists, to meet in associations more or less compactly organized for conference on grave questions of international law. Several noteworthy meetings have been held in Europe within the last few years.

One of these associations may be said to owe its origin to a few of our countrymen. It is "the Association for the Reform and Codification of the Law of Nations." It has held meetings at Brussels and Geneva, and is next to meet at the Hague. The subjects of arbitration and codification have largely, though not exclusively, engaged its attention. Its sessions have attracted a large number of eminent men.

A meeting of the American members, held a few days ago in New York, decided to prepare work for the conference at the Hague, by asking the leading publicists, jurists, and statesmen of Europe, their opinions on the desirableness and practicability of reducing the European armaments, on the feasibility of a general treaty which should bind nations to the observance of certain formalities involving delay before beginning war, on adopting arbitration in settlement of national controversies, on recent progress in reform and codification of international law, and on preventing collisions at sea, and providing for the punishment of the guilty parties. The answers will furnish material for discussion at the meeting.

The Institute of International Law is a body of more limited membership than the Association, organized much like the learned academies in different countries. Its avowed object is (I quote from its statutes in the "Revue de Droit International"), to become the organ of the judicial conscience of the civilized world, to formulate the general principles of the science as well as the rules which flow from them, to aid attempts at codification, to obtain official sanction of principles which have been recognized as in harmony with the views of modern societies, to labor within its sphere either for peace or for the observance of the laws of war, to pronounce when needed judgments in doubtful or controverted cases of interpretation or application of the law, to contribute by every means to the triumph of the principles of justice and humanity which ought to govern the relations of peoples with each other.

This body has had two meetings, one at Ghent and one at Geneva, the proceedings of which are reported in the "Revue de Droit Interna-

tional," the organ of the Institute. At the Geneva meeting exceedingly able papers were presented. One on "Arbitration," by Prof. Goldschmidt of Leipsic, and one on the "Three Rules of the Washington Treaty," by Carlos Calvo, have reached us; but the Revue has not yet brought us the full report of the proceedings.

Are we to expect beneficial results from the labors of these societies? It is thought by some, that, as the membership consists mainly of professors and jurists, their work will not reach diplomatists, and shape the action of nations. The spirit with which improvement in the law is sought by the two societies is the same. Indeed, the members of the last are nearly all members of the first. They stand somewhat in the relation to each other of the American Academy of Science and the Association for the Advancement of Science. It is true, they can speak by no authority except that of learning and character. Sovereigns and States are under no obligations to heed their suggestions. But I believe that the clear and distinct utterance of these learned bodies on grave questions cannot be without marked a influence on public opinion, and so on the policy of nations. Their power is akin to that of certain universities in the middle ages; *e. g.*, that of Paris in theological matters, and that of Bologna in law. If codification is to be perfected, it can best be done through the action of such a body of experts as the Institute, while the popular mind is perhaps most effectively reached by an Association like the other. But we may well wish large prosperity to both.

There have also been some diplomatic conventions, or congresses, which are worthy of attention. They have professedly had in view the amelioration of the sufferings of war. At the meeting in St. Petersburg in 1868, explosive bullets were condemned as cruel. At Geneva, humane rules for the care of the sick and wounded were agreed on, and the Society of the Red Cross was organized. These were all steps in the right direction. A striking fact has been the prominence of Russia in these conventions. Unhappily, the policy she pursued has awakened a well-founded suspicion that her motives are far from disinterested, and that, with the countenance of Prussia, she is eager to use these congresses to secure the adoption of principles which will give a great advantage to the powers that have large standing armies. Unless this suspicion is removed, the session at St. Petersburg is likely to be as fruitless as the last session at Brussels. Great Britain has declined to send a delegate to it. Other nations are distrustful of Russia's part in the movement; and, on the whole, little good is at present to be expected from this organization.

It is very clear that there is a strong tendency in Russia and Prussia at present to emphasize belligerent rights. Some fear that there is

just now a general drift in public opinion, back from the advanced position which has been held for some years, in the assertion of neutral rights. It is true, that the British House of Commons has just given a tolerant hearing to speeches in favor of cancelling the engagement of England made in the Declaration of Paris to recognize the doctrine, "Free ships, free goods;" but we cannot think that England will recede from her position.

There is also a tendency, among those who labor in the interest of neutrality and of humanity, to inquire whether some of the measures advocated by our most humane publicists are not calculated to aid the great belligerent powers of the world. It is claimed by those who oppose the three rules of the Washington treaty, that we, who have been so influential in enlarging the concessions of belligerents to neutrals, have here blundered into a dangerous enlargement of the responsibilities of neutrals, which will surely enure to our harm and to the benefit of belligerents. But Mr. Lawrence, and others who take this view, would stoutly disavow a retrograde spirit. On the contrary, they speak in the interest of humanity and neutrals. It is now questioned by some American publicists of standing, — and I confess I share their doubts, — whether we should longer press the proposition, so long and earnestly urged by our government that it may be called an American doctrine, to exempt private property of enemies under a hostile flag from seizure on the sea. So the doctrine favored by so able and excellent men as Phillimore and Woolsey, that neutral governments should forbid their subjects to sell munitions to belligerents, meets with little favor from many humane men. The fear is, that both these last-named measures might result in giving still larger advantage to States like Russia and Prussia than they now enjoy, and, in fact, stimulate the maintenance of great military and naval establishments.

Some of the declarations of publicists, therefore, which are occasionally interpreted as indicating a re-actionary spirit against humane and anti-belligerent propositions, are really to be understood as made in the true spirit of international reform. While, then, we recognize the present unsatisfactory drift of opinion and action at St. Petersburg and Berlin, and indulge in no dreams of the speedy disarmament of the great powers, much less of the cessation of war, I think there is solid ground for looking with a cheerful and hopeful spirit upon the immediate future of international law. Never were the subjects with which it deals so widely and intelligently discussed. Never before were the best men of most of the nations of the world so intent on making substantial agreement on the principles which should govern the intercourse of nations. The visions in which good men like St. Pierre, Leibnitz, Raynal, Bentham, Kant, and many others have indulged, of

securing perpetual peace, may still remain mere visions. The extravagant expectations of some of the advocates of arbitration and codification may not be realized; wars as absurd in their origin as the Franco-German war may still be waged: but the civilized world has reached a point where, thank God, it prefers peace to war, where neutral rights will be guarded as jealously as belligerent rights, and where its publicists are sure to be sustained by the moral sense of the world in trying to shape international law so as to conduce to what are believed to be the true interests of humanity. However slowly cabinets and diplomatists or even armed nations may yield to the dictates of that moral sense, no cabinet, no sovereign, is now so strongly intrenched in the defences of absolutism, and no nation is so girded with fortresses, that it can altogether bid defiance to the demand of the intelligent and imperious public opinion of mankind.

THE EXPERIMENT OF CIVIL SERVICE REFORM IN THE UNITED STATES.

By Dorman B. Eaton.

Read at Detroit, May 13, 1875.

The deliberate abandonment of a plan, by which a great nation had entered successfully upon the reform of its gravest abuses, may well arrest the attention of all thoughtful persons. Never before in our history has there been such a surrender of the higher to the lower elements in our politics. Heretofore, in every great struggle for reform, we have fought it out to victory upon the line of our advance, and have planted our standard high up in the light of the inspiring sentiment.

The reform of the Civil Service has been the subject of several papers read before this association, having for their object to set forth abuses, to develop a spirit bold enough to attack them, to suggest methods for their removal.

To-day the subject comes before us in a different light, — in a shade rather, — admonishing us to look back before we again move forward.

The administration, the party in power, the nation, have made an experiment of Civil Service Reform; and amid all the abuses, only diminished, it has been abandoned. The fair field of reform is deformed, obstructed, darkened, by the sombre ruin of this disastrous, humiliating experiment. The hopeful, patriotic spirit of the country is for the moment chilled; and the spoilsmen and the partisan leaders, more greedy by reason of a little fasting, and more impudent by reason of their triumph, look upon the future as all their own.

They are now demanding the offices, and the profits of controlling them; and, if not resisted, will appropriate them as the spoils of victory over the Civil Service Rules and the friends of reform.

If we have not been mistaken as to the need of better administration, if we are not prepared to tamely surrender to the influences that have just triumphed, it is plain that our first duty is to comprehend the causes of our defeat, and to gather thence instruction for the future.

It is certain that the advocates of the partisan methods of bestowing office will claim that the experiment was abandoned only because all methods but their own were found impracticable, only because all

reformers were shown to be visionary doctrinaires, only because all rules similar to those adopted are repugnant to our republican institutions; only because the party ought to be freely allowed to pay its way with spoils, and the majority ought to be supreme, under our system.

These unwarranted claims cannot be put down by any simple denial, or mere appeal to principles. They cannot, indeed, be refuted by any evidence short of that which shall present the facts, the motives, the influences, the policy, the recreancy, the neglects, which led to the abandonment of the experiment.

In short, the humiliating truth is, — and it may as well be at once stated, — that the defeat and abandonment of the Civil Service rules were without justifiable excuse, involved the breach of a public pledge, and are a national disgrace. There are embarrassing and perhaps obvious reasons why I dislike to enter into the facts which justify these statements; but, on the other hand, every thing connected with the subject is of a public nature and of public importance. The common interests and safety of the people require that the public judgment to be rendered upon this experiment should be intelligent and just. All mere individual considerations are of trifling moment; and even the natural desire to preserve the fair fame of one's party, which I strongly feel, cannot justify the suppression of facts or the shading of truth. The only alternatives for those having, like myself, special means of information, are a calculating and cowardly silence, or a full and plain statement of the truth.

What, then, was the experiment tried, and what was its effect? What, if any thing, has been gained or lost for the cause of reform?

Why are the rules no longer enforced? What justification is there for such a breach of a public pledge? Who is responsible — what officers, what party, what portion of the people — for that breach? What conclusions ought to be drawn from this experiment as to the practicability and the proper methods of Civil Service Reform in the future?

These are the main questions to which answers are sought, and ought to be given.

II.

The experience by our early statesmen, of the Governments of the Old World, and of those in their own country down to the date of our Constitution, had made them jealous of the theory upon which they were based, and resolute in the assertion of the common rights of the people, but had not caused them to attach so much consequence to the question of administration; nor does there appear to be any evidence that it was foreseen that political contests would be sustained, and great par-

ties be cemented, for State and national efforts, mainly by the hope of the honors and pecuniary gains of office as so much spoils of victory. It is but a natural consequence, then, that the national Constitution should contain no clause especially provided as a protection against this greatest abuse and peril (except slavery) which has been tolerated or developed under it; nor should we be much surprised to find that it was very doubtful whether, under it, there was any authority to adopt measures for counteracting these unforeseen evils.

Indeed, the advocates of the spoils and patronage system of appointments and removals confidently maintained the theory that it would be unconstitutional to require that any class of appointments should be made from a small list of those competitors who had given evidence of the highest worth and capacity. When the Attorney-General, therefore, upon the adoption of the Rules, decided that theory to be untenable; and all the executive departments, and Congress also, acted upon his advice that such construction was in harmony not only with the usages of the early presidents, but with the spirit and language of the Constitution itself, — a free field was won for civil service reform, which survives all suspension of the rules, as one of the abiding facts of the abandoned experiment; as one of the reasons which prove that abandonment to have been without necessity.

It is not claimed that the early presidents and heads of departments formally adopted rules, thus limiting the arbitrary discretion of making partisan and mercenary appointments, by securing the offices to worth and capacity; but theoretically they proclaimed that duty, and practically they performed it. When all the offices of the executive department were less numerous than those at present in New York city alone, when all Federal officers in Washington were fewer than those now engaged in a single story of the treasury building, when the whole national revenue for a year was less than is now collected in a single city in a single month, it was easy for the president and heads of departments to personally examine into the individual qualifications of those seeking offices. That they faithfully did so, and did not make removals for mere partisan reasons, is beyond dispute. The people enjoyed the blessings of honorable and well-qualified officers and clerks for nearly forty years after the adoption of the Constitution. As declared in the last report of the Civil Service Commissioners, p. 23, no removals were made in the clerical force on account of mere opinions. During eight years Washington removed but nine persons (except for one cause); John Adams, during his term, removed but nine, and not one on account of opinions; Jefferson removed but thirty-nine; Madison only five; Monroe only nine; J. Q. Adams only two. These were officers confirmed by the Senate. Of what might be called the clerical

force, not one was removed save for cause, until Andrew Jackson was elected, when the era of political proscription began, from which we are now recovering. For partisan reasons, that President removed nearly two thousand persons in a single year. This was the inauguration of the spoils system.

And it is to that detestable system, so far as public opinion will allow, that we have returned.

III.

Let us here recall how the rules came to be adopted, and what are their provisions.

Political parties do not take up any new measure until they think it certain to add to their strength. To this rule the adoption of Civil Service Reform by the Republican party, in 1871, was no exception; though I doubt not that a sense of moral obligation in its ranks largely contributed to that policy. The birth, and in a great measure the strength and hopes, of the party, were in that sentiment. The party was pure and fresh from the fires of a mighty conflict, in which it had stood for justice and duty against numbers and selfishness, so grandly that it had won the heart of the nation, and gathered the choicer spirits to its folds. Even scheming politicians saw that the surer prospects of gains, and the better chances of power, were in the direction of the higher sentiments of the nation.

The honest and heroic patriotism which the President had brought from the battle-field had only been long enough in familiar relations with the monster of patronage to cause him to hate it; and even Congress was raised, for a time, to that exalted mood which enabled it to do, what had hardly been done by Congress for thirty-five years, — that is, to look upon the clerkships and minor offices as something more than the mere perquisites of its members. In short, the political atmosphere was pure, the time was auspicious.

The views of Mr. Jenckes and his co-laborers had already been adopted by many men of character and influence; and Mr. Trumbull, Mr. Morrill, Mr. Curtis, Mr. Schurz, Mr. Sumner, Mr. Edmunds, Mr. Frelinghuysen, Mr. Willard, and other thoughtful and able men in and out of Congress, could lead the higher sentiment of the Republican party in the direction of Civil Service Reform; and the movement was not without much sympathy and some support from the political opponents of that party. With great force and fearlessness, the disgraceful, appalling evils of the spoils system were set forth in congressional debates and in the public press. On the 5th of December, 1870, Pres. Grant in an annual message took the lead, and committed his administration and the Republican party to the duty of

reforming the Civil Service. He declared "that the elevation and purification of the Civil Service of the country will be hailed with approval by the whole people of the United States." Vice-Pres. Wilson declared in the Senate that "there is a public feeling in this country, founded in reason, comprehending the best interests of the country, which demands reform in the Civil Service."

On the 3d of March, 1871, a law was enacted, authorizing the President, with the aid of persons selected by himself, to propose and to put into operation rules and regulations for carrying such a reform into effect. Seven gentlemen, eminently qualified for that duty, were selected by the President; and Mr. George William Curtis was made their Chairman.

After careful study of the whole subject, and the most conscientious devotion to duty, in which they were aided by members of the Cabinet, they matured a system of rules. On the 19th of December, 1871, the rules, having been approved by the President, were transmitted to Congress by special message; and they went into operation on the 1st of January, 1872. After reserving the right to amend them at his option, when changes may be deemed advisable, the President uses this emphatic language; viz., that "if left to me, without further Congressional action, the rules presented by the Commission, under the reservation already mentioned, will be faithfully executed." Except in partisan and mercenary circles, the rules were received with that popular approval which the President anticipated.

At two separate Sessions, Congress approved these rules by making appropriations for carrying them into effect. It never made any criticism of them, though they were upon its table. It made not the slightest suggestion of a covert hostility, or so much as hinted that the President or the Commission had not rightly interpreted either its own enactment, the Constitution, or the spirit of the people. Each of the heads of the executive departments co-operated in the application of these rules to his subordinates.

So strong was the better sentiment of the nation in favor of the reform, that sagacious politicians of all parties perceived that it was to be a great power in the canvass of 1872. They rivalled each other in their bids for its support. The Republicans, pledged to it by a President, a Cabinet, a Congress, which they had selected, and by a paternity of which they appropriated the honor, naturally claimed all its fair fruits, and treated the other party as poachers on their domain and thieves of their thunder. And there can be no doubt that, in 1871, by far the greater portion of all those whose political virtue was high enough to support such a reform were in sympathy with the Republican party.

The Republican National Convention in June, 1872, contrasting the old with the new system, resolved "That any system of Civil Service under which the subordinate positions of the Government are considered as rewards for mere party zeal is fatally demoralizing, . . . and that they were in favor of a reform . . which would abolish the evils of patronage, and make honesty, efficiency, and fidelity the essential qualifications for public positions," &c.

The National Liberal Republican Convention, in the same year, resolved, "That the Civil Service of the Government has become a mere instrument of partisan tyranny and ambition, and an object of selfish greed. It is a scandal and reproach upon free institutions, and breeds a demoralization dangerous to the perpetuity of Republican government. We therefore regard a thorough reform of the Civil Service as one of the most pressing necessities of the hour."

The Democratic Convention, in the same year, adopted a resolution in the same language as that last cited.

The National Labor Reform Convention resolved in the same spirit, and in language hardly less emphatic.

The State Conventions of that year generally recorded their judgment upon the great question of Civil Service Reform, approving the action of the President and the national platforms, in harmonious and eulogistic resolutions.

The Illinois Convention insisted that the Republican party "was the only one which, while in power, . . . had tried to destroy that infamous sum of all villanies, chattel slavery," and had questioned the dogma "that to the victor belongs the spoils of the vanquished." The Minnesota resolutions declared, that "the administration of Gen. Grant was illustrated . . . by his efforts to reform the Civil Service." The Convention of Massachusetts, in the exuberance of its delight, declared that, "Moved by an earnest appreciation of the fidelity and wise patriotism of Pres. Grant, in his efforts to improve and elevate the character of the Civil Service, 'we do most cordially recommend' that he be re-nominated." The Republican Convention of New Jersey declared "That we cordially indorse the appointment and labors of the Civil Service Commission, and the message of Pres. Grant thereon." The Republican Convention of New York resolved, "That the Civil Service ought to be reformed;" that of Pennsylvania and Western Virginia resolved, "That the President's plan for reforming ought to be approved;" that of Ohio, that the President's efforts in that regard ought to be lauded.

The popular orators of all parties proclaimed their devotion to the reform before the assemblies of the people; and the public journals bore the pledges of fidelity to every village and household of the land. The praise of the President and faith in him was in the hearts of all; and public gratitude was a part of the merited reward of Mr. Curtis and his fellow-commissioners. The popular breeze filled the sails of the dominant party; and the votes of a grateful and confiding people elected the Republican President, Congressmen, Governors, and minor candidates generally.

The more intelligent and unselfish portion of the people were unquestionably influenced by their faith in these resolutions and pledges.

They thought that men of trustworthy honor and courage were thus committed to the permanent support of the reform; they believed that the object of the long-unanswered prayer of their hearts, for a purification and elevation of the civil service, was about to be realized. They, and the worthy men who, at the expense of great sacrifices to themselves, were invited to aid in preparing and applying the rules, thought that a party once committed to so beneficent a work would not voluntarily abandon it.

How sadly, how disgracefully, have they been disappointed!

It is not suggested, it would doubtless be unjust to suggest, that any refusal to make an appropriation, any specious evasions of the spirit of the rules, any unwarranted indulgence of favoritism or nepotism in the use of the appointing power, any connivance at causes which would give plausibility to an open abandonment of the public pledge of reform, — much as their supposed existence has weakened the public confidence, — were among the mental reservations or forecasts with which such resolutions were adopted, and such victories were secured. The assurance and the demoralization incident to the long possession of power under conditions very unfavorable to political morality, and the seductive influences of ambition, flattery, and interest, may be sufficient to account for all that has happened. But, however that may be, these propositions are incontestable: —

1. That no official head of a nation, no congress, no party, ever before an intelligent people in a more absolute, solemn, and binding form, made a pledge of faith and honor to stand by and carry on to victory a great reform, by common consent vital to a nation, than is involved in the proceedings to which I have referred.

2. That nothing less than some insurmountable obstacle, some inherent defects of provision which no modification or addition could relieve, some pernicious effect in practice which would be nearly as bad as the evils sought to be removed, or some essential want of power, could justify or excuse the President, Congress, or the party, in the evasion or abandonment of the work of reformation to which they were pledged.

IV.

But, before considering the excuses for the abandonment, let us see for what the rules provided; that is, what ideas of official duty, thus approved by the people, have been abandoned by those they elected.

1. Political assessments, which have always been imposed in aid of the mercenary interests of the most partisan elements in our politics, and which are incompatible with integrity and the requisite independence on the part of the public officers, were forbidden; but leaving every citizen alike free to contribute so much as he should wish to promote his political opinions.

2. The public places were so divided as to bring a few of those of the higher grade, which might fairly be claimed to represent the policy of those in power and the principles of the dominant party, within the range of that unconditioned appointing power of the President that must, it is conceived, be so far exercised in reference to such policy and principles as may be needful to secure harmony and vigor in the Administration; but in all the grades below, which were classified and grouped in aid of regular promotions, the places were required to be filled by selections from among a few ascertained by tests of character and qualifications which, in their nature and application, were irrespective of political opinions.

3. These tests were, first, the best attainable of good reputation and honesty: and, next, a fair public competitive examination of the several applicants, as to their attainments and capacity in those particulars which are essential to the proper discharge of the respective positions for which they might compete. These competitive examinations extended both to those seeking admission to the service, and to those seeking promotion.

4. Selections to fill vacancies and for promotions were to be made by the superior officers having the appointing power, from among a limited number of those standing highest on the lists, as the result of competition. The appointment was first to be made only for the probationary period of six months; final appointment being contingent upon good behavior and capacity demonstrated within that period.

5. To insure the necessary vigor and authority in the executive, and to avoid any suspicion of an intention to create a permanent term of office, the existing term was left undisturbed; and there was no further restriction placed upon the authority of removal than the pledge in the Rules that "such power will not be arbitrarily exercised, . . . nor will any person be removed for the mere purpose of making a place for any other person."

6. The examinations were to be so frequently conducted that all desiring to compete should have a convenient opportunity, and that there should always be a considerable number of those of approved merit and capacity upon the lists, from whom appointments and promotions could be promptly made.

The examinations were to be made by competent Boards of Examiners in the several departments, subject to the non-partisan supervision of the Civil Service Commission, whose duty it was to take care that the questions were well selected, that the processes were fair, and that all grievances should be exposed and redressed. Mere employees were not subject to examination; and there was a class of subordinate clerks, such as counters, and mostly females, to which they had only a restricted application.

7. To give scope for honorable ambition, and reward to unobtrusive merit, as well as to cultivate the spirit of just subordination, original admission to that part of the service which must be reached through competition was always to be to the lowest grade; and promotions were to be from grade to grade in the same department and group, subject to such reasonable right of transfer as the good of the Service might require.

8. Records were to be, and were, kept of every examination, and of the basis of rank assigned in the competitions, so that at any time, however distant, it will be possible to review the justice of the marking and grading of every person examined in each subject to which the examination may relate.

9. To check the abuse of Federal officers interfering so much in State politics, it was provided that no such officer should hold any State office at the same time that he held a Federal office.

10. Just above those grades to which such competition was applied (and which included the great body of the clerical and official force of the Government), and just below that small number of higher political officers as to which executive discretion was not conditioned, there was a number of officers, such as collectors, surveyors, certain postmasters, &c., not wholly exempt from the rules, but yet to which competition was not extended. The nomination of most of these officers was subject to the confirmation of the Senate, and to such it will be found very difficult to apply strict competition. It is hardly possible for the President to secure reform, as to such appointments, without either the hearty co-operation of the Senate, or the aid of a public opinion so stern and coercive that it shall help to arrest the evils of the old system, by which such appointments are substantially allotted, as so much perquisites or patronage, among the liberal Senators.

Here was the most difficult subject to deal with; and it is just here that the rules were the least satisfactory, and the spirit of hostile criticism and obstruction found their opportunity and their strength. Having been abroad at the time of their adoption, and without responsibility for the original rules, I might think myself without bias, and at liberty to declare any opinion that I have formed; yet I very reluctantly do so.

I think the extension of rules in any form, in the first experiment, to that class of officers, was at least of doubtful expediency. That reform was there needed, no one will question. But it is never expedient, even if safe, to make the line of attack too extended for the attacking forces. The radical method, however true and useful its spirit, may not always be the best. Between the methods of Garibaldi and of Cavour, of John Brown and of Lincoln, there is at least ground for a difference of opinion. It has seemed to me, in the light of our experience, however I might have failed to foresee the result, that it would have been wiser to have foreborne to so extend the rules before their utility had been demonstrated, where competition was their basis, or a vigorous and appreciative public opinion had been developed for their support.

Competitive examinations are just, public, and certain in their processes, and in the records they leave behind. But when, as was provided as to the class of officers referred to, the head of a department was to make a nomination, not on the basis of merit demonstrated by free public competition, but on the basis of the judgment of a board of examiners founded on certificates, I am compelled to think that inexpedient and incongruous authority and duty were conferred upon such boards. And the provisions requiring the President to appoint

from a small list, certified by a head of department, also on the basis of certificates, seems to me hardly less objectionable. There is no competition to bring the credence due to such certificates to a public test. There is nothing open to the public, either to serve as a check upon the appointing power, or to answer the hostile criticism which such a process is sure to call forth.

It was in the application of the provisions which I have criticised, that those unfortunate difficulties arose, — how far from the nature of the subject or the rules, and how far from any shortcomings of the President, I do not feel it would be useful to inquire, — that caused the first chairman to decide that he could no longer retain his position with usefulness and self-respect; and, as a consequence, the cause of civil service reform, which he had so greatly served and honored, in a critical period lost its leader; and all its enemies rejoiced and took courage at what they speciously interpreted as evidence of its intrinsic demerit, and of the want of sagacity and courage in its authors. It is due to Mr. Curtis to say that he never allowed his disappointment to arrest his pen in the service of the cause of reform; and it is due to the President to add that he declares that, in his acts which occasioned the resignation, he intended to be faithful to his duty. I do not care to attempt to state how much the reform was weakened by that most conscientious resignation.

It is the highest tribute to the wisdom and forecast with which the original rules were framed, that experience has shown so little needing change; and that their natural enemies have been compelled to resort to secret tactics, demonstrating alike hostility to the whole spirit of reform, and a conviction that the merits of the new system would stand the test of debate in or out of Congress.

It was the common conviction of the re-organized commission, of which Mr. Shellabarger and Mr. Eaton were made members in April, 1873, that, however great the danger that the party which had inaugurated the reform would desert it, they ought to stand by it to the last. If it must go down, the interests of the future required that its methods, its influence, and its defects, not less than the causes of its failure, should not be left in doubt. To allow the mercenary partisans of politics to take a judgment by default to the effect that the rules perished of the inherent impracticability of their principles, or by reason of their essential repugnance to republican institutions, would have been a tenfold greater calamity than evidence of their being suppressed by congressional connivance or by partisan intrigue.

Besides, there were some damaging defects in details, which were susceptible of remedy.

In that view, the re-organized commission recommended rules to the following effect, which were promulgated by the President: —

1. A rule requiring written evidence of fitness in reference to every appointment before it should be made, and the preservation of such evidence in the proper department.

2. The rule already cited, as to the tenure of office, and prohibiting removals for the mere purpose of making places for others.

3. A new rule providing for examinations in each of five separate districts into which the country was divided; with such arrangements for examinations at several convenient places in each district, and for allowing appointments to be made from the competitive lists of each, that the officers could be fairly apportioned over the whole country. This removed the formidable objection that the rules tended to centralization, and encouraged office-seekers at Washington, so long as all examinations must be held there.

4. Appropriate rules for taking the whole light-house service of the country out of politics and favoritism, and for testing by impartial methods those faithful qualities and special capacities so essential in that branch of the service upon which the safety of life and property so greatly depend.

The re-organized commission also obtained, for the first time, full reports in writing from the heads of all the bureaus and offices in Washington and the city of New York, — where alone the Rules had been applied, — setting forth in detail their practical operation and effect; and in the report to the President in April, 1874, the commission made a full statement of all the methods and results of the reform to that date, which, on the 18th of that month, was transmitted by the President to Congress in a special message. In this message the President declares, "That the rules, as they have been enforced, have resulted beneficially, as is shown by the opinions of the members of the cabinet and their subordinates in the departments; and in that opinion I concur."

The message requests "such appropriation as may be adequate to continue the work in its present form." The amount needed was twenty-five thousand dollars a year.

If it were the special object of this paper to vindicate the utility of the methods of reform thus approved by the President, it would be easy to set forth the facts which abundantly sustain the opinion expressed in the message. They show that the prospect of attaining those officers within the range of the Rules was becoming associated in the public mind with personal worth and attainments; that it had been found easy to apply the methods of competition with precision and justice; that examinations had been conducted, not only at Washington and New York, but in Cincinnati, St. Louis, and Savannah, with great facility, economy, and success, at which young men and women of worth and intelligence had earnestly competed together; that original admission, as well as promotions, under the Rules, had brought not only a better grade of qualifications into the public service,

but had stimulated an honorable and salutary rivalry for positions thus placed within the sure reach of merit; that the coercive power of caucuses and conspiracies to dictate appointments and removals had been diminished; and last, but not least, that there were unmistakable indications that the general tendency of the new system here, as it has been in England, was to stimulate education, and enhance the value of character, in the same degree that the Government appeared in the market seeking and honoring such qualities for its service, while it repudiated favoritism, and refused to be coerced by spoilsmen.

It is true, there were defects to be supplied, there were minor objections to be removed, there were prejudices in favor of old methods to be reconciled; there were unwelcome curtailments of authority on the part of officers who had, of course, lost as much of their arbitrary power of favoritism and patronage as had been gained in the assured opportunities of merit; and naturally these results caused some hostility and opposition. But, on the whole, the success and the promise were such that it could be truly said that firmness, fidelity, and courage were the only conditions needed for a grand, final triumph over the spoils system. Of course, the natural friends of that system, — the extreme partisans, the mercenary journals, and the little organs of the great demagogues, the politicians by trade, the office-seekers and office-jobbers who hoped to rise by the caucus, and by the promise of places, the whole class of those who have no conscience and no faith beyond the will of the majority, — all these were hostile and alarmed.

But the proof, that such had been the effect of the new system, is not merely a logical deduction from the facts, or an opinion of the President and of the members of the Commission. It is sustained by the best evidence of which the case will admit, — by the deliberate opinion of the highest officers best knowing the facts, and most competent to judge. For the Cabinet itself, at a special meeting, formally adopted the following language in the Report (of April 15, 1874, p. 42), as fairly stating the results of the Rules: viz., —

"1. They have, on an average, where examinations apply, given persons of superior capacity and character to the service of the Government, and have tended to exclude unworthy applicants.

"2. They have developed more energy in the discharge of duty, and more ambition to acquire information connected with official functions, on the part of those in the service.

"3. They have diminished the unreasonable solicitation and pressure which numerous applicants and their friends, competing for appointments, have before brought to bear upon the departments in the direction of favoritism.

"4. They have, especially where competition applies, relieved the heads of departments and of bureaus, to a large extent, of the necessity of devoting, to

persons soliciting places for themselves or for others, time which was needed for official duties.

"5. They have made it more practicable to dismiss from the service those who came in under the Civil Service examinations, when not found worthy, than it was, or is, to dismiss the like unworthy persons who had been introduced into the service through favor or dictation.

"6. They have diminished the intrigue and pressure, before too frequent, for causing the removal of worthy persons for the mere purpose of bringing other perhaps inferior persons into the service.

"7. And, for such reasons, those officers think that it is expedient to continue the reform upon the method upon which it has proceeded, making from time to time such modifications in details as experience may show to be most useful."

Such were the Rules which the President had caused to be prepared and enforced under a law of Congress, and such their practical effects, which, in April, 1874, the President brought to the attention of that body by special message, with a request for a further appropriation for carrying them into effect.

V.

We have now reached a crisis in the fate of this experiment. The most hopeful could not be blind to the portents of peril, not from any thing intrinsic to the reform itself, but from the waning morality and patriotism of the party upon whose support it relied.

In the three years since 1871, that party, or at least its managers, had suffered an eclipse of faith in the higher sentiments. Confident and arrogant from the long possession of power, it had more and more fallen under the control of leaders and officers given over to partisan and mercenary ambition. Sad evidence of this was on every hand. The unworthy officers and the scandalous abuses which disgraced the administration in several of the reconstructed States; the mercenary greed and arbitrary methods of revenue officials, which alarmed and alienated the most upright citizen at the great financial Centres; the confusion and flagrant disregard of economy and justice, at the very doors of Congress, in that district where its power was supreme; the disclosures made by the *Crédit Mobilier* investigation, which damaged so many fair reputations, and tainted the whole atmosphere of national politics; the so-called "Salary Grab," which showed how disastrous it is for party managers to fall below the moral tone of those they attempt to lead, — these are but specimens of the many proofs of a demoralization in the dominant party, perilous to any measure whose strength is in public virtue.

But for such demoralization, benumbing the common-sense of duty to stand by a public pledge, and blinding those affected by it to the

plain indications of a retribution near at hand, it would be impossible to explain the levity and the recklessness which characterized the treatment of Civil Service Reform by the party leaders both in and out of Congress in 1873–74. Such was the infatuation, that all but a few firm spirits acted as if they had forgotten, and wished to forget, that the Republican party had, only two years before, solemnly pledged itself to accomplish this reform; that the method proposed had been sanctioned by its President, its Cabinet, its Congress, its Conventions, State and federal; that whether the method adopted was wise or unwise, narrow or shallow, it was the best its wisdom could suggest or its morality support; that, good or bad in its effects, it was a work by which and according to the execution of which the people would judge its authors; that, for evil or for good, its fate would be a barometer of the political virtue of a party which had a glorious record, and would be accepted abroad as a test of the amount of unselfish patriotism which a republic could dévelop.

In narrower spheres and meaner ways, the same debauched sentiment was equally manifested. The local organs of official and caucus demagogues, which, to get votes, in 1872 had lauded the reform and its authors, now declared it to be finical, impracticable, useless, — the production of theorists and doctrinaires who desired to promote bright schoolmasters and to depress party patriots. Notorious champions of Sanborn contracts and moiety spoilsmen, in the pretended interests of the soldier and of patriotism, attacked the rules which the great general of the army had promulgated, and which the resolutions of their party had two years before declared to involve the fate of the country.

Little demagogues and sinecure officials everywhere tried to make it appear that the Civil Service Commissioners were alone responsible for the Rules, and insisted that those who stood by a public pledge and for a public duty, rather than those who connived at repudiation, and sighed for a return of the spoils system, were fit subjects of ridicule and pity. While one set of partisans daily besieged the President and the members of the Cabinet with dolorous complaints of party losses of funds and of places, by reason of the Rules which forbid assessments upon clerks, and gave appointments to merit, another set filled the journals and the air with statements that the reform was so narrow and the rules so loose, that they were unworthy the support of a great party; indeed, only deserved the contempt of men ready to fight like hyenas over every appointment to a country post-office, to a village collectorship, or to a seashore light-house. As specimens of what often occurred, I may say, I heard one member of Congress, while seeking patronage at the Treasury, declare that his election cost him $1,000, which he thought it hard that he could not collect by such assessment

in his district; and another urge the removal of a faithful light-house keeper, to make way for an active politician, who he said, if elected, could control in his favor the votes of a hundred boatmen, fishermen, and light-house dependents. In face of the incontestable fact, that in England the application of similar rules for the selection of officers, supported by Mr. Bright, Mr. Fawcett, Mr. Lowe, Mr. Mill, Mr. Forster, Mr. Gladstone, and all the great liberal leaders and friends of equal rights, has purified her administration, and contributed more than any other means to promote republican principles, and to destroy the monopoly of the privileged classes, Republican orators and officials were listened to while they stultified themselves, and paved the way for the defeat of the party, by speciously insinuating that the Rules were aristocratic in spirit, and hostile to the genius of our institutions.

But I forbear any further evidence of decay in the moral tone of a party dear to me, and which, I trust, will yet rise to the level of its earlier achievements.

VI.

The opening stages of the session made it plain that the congressional majority was not guided by a statesmanship, or animated by the controlling moral sentiment, required for the support of a great reform. Though with a membership in a rare degree unsullied by jobs or scandals, and honored by some men of rare virtue and ability, this Congress yet showed a great want of experience, and was alternately either insubordinate or strangely ready to follow that presuming spirit who believed in patronage and spoils.

Various bills were presented, and especially one by Mr. Smart, which seemed to have the double object of getting rid of the rules while avoiding the disgrace of repudiation, and of securing patronage to members without openly demanding it. The secret aim of this bill seemed to be, to apportion among the members of the House all the appointments below Cabinet officers and foreign ministers, not already appropriated by Senators. It actually provided for assigning a numerical proportion of all clerks and employees to each congressional district, and for their nomination by its representative; a measure which would have placed the executive at the mercy of Congress, and made the fate of every clerk and employee dependent upon congressional elections and favoritism.

There was appointed, for the first time in the House, a committee on *Civil Service Reform;* but, instead of placing at its head any friend of the reform or of the President, the Speaker selected for that position a pliant politician from Connecticut, with no convictions which interfered

with pushing his friends in violation of the Rules, which he damned with his own faint praise, while he taught the rest to sneer. There was an able minority of sincere, worthy men on the committee; but the majority sympathized with the chairman, and did nothing to strengthen either the President, the party, or the reform.

In view of such facts, the members of the commission[1] could not fail to see that the future was precarious. It was open to them, to resign from a position which they had not sought, and in which, with much pecuniary loss, they were made the subjects of misrepresentation and ridicule; or, to stand at their post of duty at all hazards. They resolved upon the latter, and, to make one more appeal in behalf of fidelity and duty, to present the facts so fully before Congress, that, even if it should repudiate the reform, its practicability and its principles would be demonstrated.

Their report therefore presented the theory and history of the Rules, not as a *panacea*, not as a device for creating public virtue, not as sufficient in themselves; but as correct in theory, as in harmony with our institutions and social life, as having accomplished some good, as being as comprehensive as the public virtue would sustain, as capable of being deepened and broadened in the direction of public abuses, as sure, if abandoned, to bring discouragement and dishonor.

In presence of the tendency to smother the subject, the report told the President and Congress that the "issue was fairly raised, and that the Rules should now be regularly enforced or openly rejected." Every objection that had been urged against the new system was answered both upon fact and upon principle; and an open discussion by its enemies was challenged. The whole theory of Mr. Smart's bill and of analogous bills was arraigned, and shown to be opposed to all sound principles of government, repugnant to the Constitution, demoralizing in tendency, impossible in practice; as sure to degrade congressional elections, and to convert the whole clerical force of the Government into scheming politicians bound to take part in self-defence, in every local election.

Instead of humbling themselves before the President, and telling him he had done every thing that he could or should do, as some respectable journals without warrant declared; instead of telling the President that he might honorably abandon the reform, or of opening the way for him to do so, as his political enemies and the partisan leaders desired, — the report merely asserted that "the criticism of his acts was in *great measure* unjust, and the opposition in great measure

[1] Here, as elsewhere, I speak upon my own understanding of the facts, and without consulting any of my associates, so that responsibility for my language belongs to myself alone.

selfish and corrupt;" and it also declared that "the President" was committed "to the reform, in the forum of an exalted position, pledging before the people of the United States and the civilized nations, his country, his office, his party, his honor, judgment, and reputation; that, however others may withdraw or surrender, it would seem to be impossible for the President to do so, unless the experiment should fail to be a benefit to the people."

It was not thought useful or fit for the commission to say more, or to speak plainer.

The Smart bill, and all others for respectably covering the retreat in Congress, fell dead. No member made an attempt to answer either the facts or views of the President and Cabinet, or the general reasoning of the report. What could not be met was to be evaded. Without a substitute, without a debate, without a calling of ayes and noes, without any avowal of a policy or any assignment of reasons, without one manly protest even, the Congress of the United States — the party in power — adroitly attempted, by refusing a small appropriation, to smother a measure of reform thus successfully carried forward under its own enactment, for which its President and Cabinet appealed, and upon the faith of which an election had been carried.

There are no more humiliating pages in the records of Congress than those which record the consummation of this policy. If there were some members who had little earnestness for the reform, because it was too narrow, or too feebly executed by the President, why did they not stand up and manfully declare that reason on the floor of Congress, and demand a reform becoming the people and country? If there were any who thought they could refute the reasoning or the facts of the report, why did they neglect so fit an occasion to do so? If any had faith in the spoils system, or thought the fate of their party depended upon bestowing places upon poor politicians, and collecting assessments from poor clerks, why had they not the courage to defend their theory? It was this want of fearless speech, this evading of a great issue, this servility to a pervading, demoralized sentiment, this cringing before the majority and the President, this infidelity not merely to the principles involved in the Rules, but to the spirit and principle of all faith and all reform, which destroyed the confidence of the people, made inevitable the defeats that have followed.

It is true that Congress at the same session defeated the Sanborn contracts and the moiety system, and investigated the Washington frauds; but it is also true, such measures were forced upon it by the same higher, non-partisan sentiment which demanded a general Civil Service Reform, and now demands it; and it was further true also, that

those who purified those little fringes on the vast network of official corruption, seemed not at all conscious of their own absurdity, in claiming so much honor for such acts, at the very moment they were repudiating the great work of reform by which they stood pledged to purify the whole web of corruption, to tear up by the roots the entire spoils system, of which the pillagers of Washington, the venal, incompetent collectors, and the greedy robbers of the unwary merchants, were the inevitable fruits.

It was in vain that a large majority of the Senate tried to arrest the policy of the House. The exigencies of a conference committee speedily consummated the purpose of repudiation.

VII.

Even if the greater responsiblity for the disaster rests upon Congress and the party managers, it may be asked if the President had been without fault. Though by no means able to justify the extreme and indiscriminate censure bestowed upon him, especially by those influential journals which at one time did so much for Civil Service Reform, but whose disaffection did so much to weaken it after the Presidential election, I yet hold it true that the President gave sad occasion for criticism, and that he has been the cause of most of the trouble the reform has cost him. It may be doubted whether, when he entered upon the work, he took the full measure of its difficulties, or anticipated the need of so much self-denial and so much resistance of solicitation as it was sure to demand. The language of his first message on the subject, which says that the purification "of the Civil Service will be hailed with approval by the whole people of the United States," is at least far from what an experienced politician would have anticipated; for not a few of the people desired the spoils system to continue, and were as much opposed to such purification as burglars are to a good police, or slaveholders were to emancipation. It was, for the ease and success of the President's reform, a first condition, that he should always stand firmly by its natural friends, and sternly repulse its natural enemies. To accomplish such a reform, he needed the zeal, the self-denial, and the persistency, of the true reformer. He must not only be beyond reproach, but beyond reasonable criticism, in the disinterestedness and wisdom of his appointments. He must allow no doubt of the inflexibility of his resolution, of the sincerity of his motives, of the disinterestedness of his action. No one can claim that he substantially fulfilled these conditions. Sometimes to those near him by the ties of blood, oftener to those near him by the ties of friendship, he was obviously partial. In striking cases, when the spirit but not the letter of the rules was involved, he sadly fell below the duties of his

position, and gave his enemies dangerous opportunities of attack. Pressed by partisans, he did not, as he might easily have done, wholly put a stop to assessments; and yielding to his sympathy for the soldier, and to his love of obliging his friends, he tolerated departures from the rules in the lower grade of clerkship; but, far worse than all this, his unenthusiastic nature failed to give the impression of his real earnestness in the cause; and he never took it up with that stern resolution which its magnitude and the power of its adversaries demanded; never made those adversaries feel the force of that mighty will which on other fields had made his enemies tremble, and inspired his friends with courage and confidence. Public confidence was withdrawn.

Had the President but said to those who urged him to violate the rules, or to wink at their violation, "I am committed to this policy: my honor, my duty, the honor and interest of the party that elected me, and, what is far more sacred, the honor and interests of my country, require me to enforce that policy; and I will enforce it during my term, whoever else may tamely surrender to the spoilsman," there would have been a noble triumph assured: his tormentors would have been abashed, appropriations would have been voted, his reward would have been the blessings of his country; and, long after the bloody glories of his military campaigns had faded, he would have been remembered as a statesman and a benefactor, who carried through a civil reform which required a better courage than was ever tested on a battle-field.

Still the President is entitled to justice, which will award him no small praise. He was the first President who had the moral courage and the disinterestedness to attempt the overthrow of the spoils system, and he was the last of the great forces of his party to leave the field. He sustained the contest amid the most outrageous aspersions of his motives, and faithfully repulsed the solicitations of friends and partisans, beyond the example of any of the late Presidents. Senators and Representatives, heads of bureaus, Collectors, and officers of every grade at Washington, and from all parts of the Union, in instances innumerable, appealed, intrigued, threatened, in vain, to induce him to depart from the rules in the interest of their friends, the party, and the local elections. Hardly a clerkship was filled, hardly a promotion was made, for which there were not numerous contestants, backed by official influence, or re-enforced by personal appeals, who demanded a suspension of the rules; and they could be sustained only by offending officers, friends, and party organizations. None but those familiar with the facts can conceive the pressure, the fatiguing solicitations, and the partisan menace, to which the President was subjected, and most of which he so nobly withstood.

There were not wanting Congressmen, bound in honor to stand by a

law they had enacted, and to aid the President in a trying position to which they had invited him, who denounced his obstinacy in enforcing the rules, and gave it as the reason for their not getting offices they had pledged for votes; while, at the same time, they besieged him with pitiable solicitation in behalf of personal favorites and friends. Savage criticism, from venal and partisan journals, was sure to follow a refusal to break the rules in obedience to their demands; and even great leaders of the party preferred infidelity to a national pledge, rather than a forbearance of assessments for a local election.

While such reasons do not answer, they go far to mitigate, any charge that can be brought against the President.

They would, indeed, be enough to discourage all hopes of early resuming the great work, were it not that the same elections which have rebuked such infidelity have also left at home the more guilty, and have brought into power those whose attacks upon the spoilsmen have received a response which shows that it is not true of the people, but only of the politicians, that public virtue has declined. Gov. Tilden in New York, and Gov. Chamberlain in South Carolina, have demonstrated that, in 1875 as in 1872, the people are on the side of honesty, and that any party which would win the future must not connive at official corruption. Gov. Tilden's late declaration, that "the question of honest administration, and the question of securing official accountability, are the great questions of the future," is not only true, but it may perhaps be of hopeful significance. Faith in the higher sentiments, and open assault upon corrupt officials, will yet bring strength to any party.

VIII.

After Congress had thus turned its back upon the reform, which much weakened the resolution of the President, the members of the commission could do but little. Without money, even to pay their own travelling expenses, they could not ask examiners to go beyond Washington to hold examinations; but they resolved not to resign so long as any opportunity of usefulness remained to them. Those on the examining-boards who out of regard to the public welfare, and the honor and dignity of the service, had performed so much uncompensated labor, were equally constant; and they continued their patriotic devotion to the last.

But when the moral power of Congress could be invoked against the rules, when so many members justified their recreancy by arraigning the President and the reform, all the elements of resistance were revived; and the friends of the new system were for the same reasons enfeebled. Its administration during the past year was, of

course, unsatisfactory. The President was believed to be wavering. Yet, during that period (and not according to any wish of Gen. Butler, but at the time and in the manner requested by the Commission), the President extended the rules to Boston; and the new rules for that purpose were put in force in the light-house service.

At last, however, the final and fatal decision of the President was reached; and, if he was not prepared to rise to a higher level, I believe few will doubt that a surrender was better than that feeble existence of the rules, which would only bring, upon the reform and the President, public contempt.

The announcement contained in the last annual message, that, "if Congress adjourns without positive legislation on Civil Service Reform, I will regard such action as a disapproval of the system, and will abandon it," was made, so far as I am aware, without the approval of any member of the Commission.

In that message, he repeats that "the rules have been beneficial," and "have tended to the elevation of the service;" and declares that to himself, and to those associated with him, the result "will be a source of mortification."

Most certainly it will be a source of mortification, and more; for history, it seems to me, must adjudge this so-called abandonment to have been a needless and unjustifiable *surrender*, — a lamentable event in the life of one who has permanent claims upon the gratitude of his countrymen; a surrender that can no more be justified than the surrender of Webster to the slave-power; a surrender no more to be forgotten than the recantation of Cranmer, which the fires of heroic martyrdom could not obliterate.

It was neither the approval of Congress, nor the perplexities of a position, which was the standard of duty, but the pledge given, the acknowledged need of reform in the Executive Department, and the admitted fact that the rules were accomplishing that reform. Such an opportunity as hardly occurs in a century, for an act of moral heroism, was lost; and therefore a nation must suffer.

It is hardly necessary to add, that at its last session Congress repeated the dumb farce of the previous winter, and that no appropriation in aid of the reform was made; and thus, without a public reason or a public act, a repudiation, a suicide, and an insult to the President, were accomplished together. A Congress that could debate, and call the Ayes and Noes, and vote, for months together, over the prospective glories of the partisan spoils system, to be secured by inflation bills, civil rights bills, bounty bills, and force bills, and over the past glories of that system as illustrated in Louisiana, Arkansas, and the city of Washington, had not the moral courage to make a record of a vote or of a reason upon the most important subject that came before it.

IX.

And, finally, a few words of the future.

Though the reform is defeated for the moment, not a few of those who betrayed it, and those who led the opposition to it, are defeated also. The need for it, and the honest sentiment of the people that demanded it and is ready to sustain those who faithfully serve it, survive. It is only a question of time when Civil Service Reform wil again be made a national issue; and, what party will adopt it, no one can tell. Though the spirit and effects of the reform are wholly non-partisan, yet, like the assault on slavery, it will need to be sustained by the power of a great party. Nothing, I think, is more certain in public affairs, than that we can not and shall not go on indefinitely under the spoils system.

It is no small gain that the true principles and methods have been vindicated, that a place under the Constitution has been secured, and that it is not the methods, but the agents, that have been unreliable. Whenever the better sentiment — already enough in volume — shall be fitly organized, it will make its power felt again and we shall then know how to do the work of reform it will demand on a far larger scale.[1]

In all the older nations, except Switzerland, the great questions have been, and for a long time will be, How shall the Government be framed? How shall liberty and equality be achieved? With us, the great questions are, and will continue to be, How can competent, faithful persons be brought into the public service? How shall honest, vigorous administration be secured? More and more, in villages, cities, counties, and States, these great questions of ours are perceived to be vital, and are arresting public attention. Without more faithful and capable men in the offices and clerkships, the results must be evil continually. Liberty and equality are lawless and corrupt, without virtue and capacity in office.

[1] It has seemed to me that it would be desirable to allow somewhat more authority to a Head of a Bureau, in making selections for promotion, than the original Rules provided for. This might be accomplished either by allowing a larger number than three from which to make the selections, or by conceding to that officer the right to add a certain number (not exceeding one-fourth of the maximum fixed for the examiners' markings, or in other words, 25 in a scale of 100), to the respective markings made by the examiners; the said amount so to be marked being such officers' estimate of the relative practical usefulness of the candidate. I much prefer the latter method.

Such, in general, appears to be the opinion also of an English commission (which has made a report this year), at the head of which was Sir Lyon Playfair. Of course, we could not desire to introduce any of the aristocratic features of the English Rules; but we need subordination in the clerks, and a deep sense of responsibility on the part of such officers, of which such a change would be a guaranty.

It is of great public significance, that a Mayor of New York City, in affiliation with Tammany Hall, has just filled several important places in his gift, more in reference to the higher sentiments than to the lower majority; and that a Governor of New York grows popular in proportion as he defies the baser spirits of his own party, and exposes the corruptions which the better men of all parties detest. Even while standing in the ashes of our own temple, we may be more hopeful.

But let us not underrate the magnitude of the evils to be removed. They cannot be overthrown by resolutions, or cured by Civil Service Rules alone. The real power is the public opinion behind them. We must have an aroused and enlightened public opinion all over the land, which shall more fully comprehend the abuses, their causes, and their true remedy. To awaken and sustain such an opinion, is worthy the highest efforts of this association.

A true Civil Service Reform is a great and difficult work, in which the making and enforcing of rules are valuable only in proportion as they give merit a fair chance, and aid in breaking up the monopoly of partisanship and official influence.

The people must comprehend that this reform is an effort for the protection of themselves against the ambitious rapacity of their officers, and the mercenary tyranny of their partisans, — a struggle in which the interests of all honest men and women are on one side, and the gains and opportunities of all dishonest officials and all jobbers in politics are on the other side. It is not a reform that can be carried by assault, or be made to secure a Millennium of justice and honesty, but is a contest as enduring as the love of gain and power, in which honesty and patriotism must forever confront selfishness and ambition.

We must not look for radical victories to be achieved at once, but must be content with ground slowly and steadily won from the common enemies of good government. Those who will not lift one foot from the mire until they can lift both, who will not capture a single fort until they can capture a whole army, who will not teach the multiplication table until they can teach geometry, who will not discourage the use of whiskey until they can prohibit the use of lager beer, who will not instruct a heathen that he should be honest and industrious until he accepts their creed, I am persuaded misconceive both human nature, and the conditions of all political reform.

No greater mistake has been made than that of criticising and assuming to despise what has been done, because it was narrow and limited compared with the abuses. The most cunning enemy could invent no more insidious method of defeating what was threatening him. At the very moment that these misguided friends of reform

were sneering at it because it was too shallow and too narrow, all the partisan and corrupt officers in the country were united in opposing it because it was too broad and too threatening. Had the Rules extended only to the Treasury at Washington, or to the office of one of the principal collectors or postmasters, and been fairly enforced, they would have soon made an example fatal to the entire spoils system. We must be united and patient, and learn to labor and to wait.

Let us dismiss the delusion, that the President or Congress will achieve the reform for us. They are least of all persons free to do so, or likely to do so, unless coerced by public opinion; for they are fearfully tempted to pledge offices to gain votes; and, when once elected, they are beset on all sides by those demanding reward for services rendered, and seeking offices for which services are promised. It is these officers, and especially members of Congress, and those who have discretion to make arbitrary appointments, who resist all limitations upon that discretion, and oppose all chances for true merit to enter the public service without bowing the knee to them.

The provisions of our Constitution, under which representatives have no right to interfere in nominations, and senators have no such right except by voting as to the merits of some of those made by the President, have been so evaded that members of Congress have been converted into something like office-brokers, and the very balance of the system has been impaired. Hundreds of needless offices and many excessive salaries are allowed to satifsy this Congressional greed for patronage. We must insist that the legislative department shall keep within its sphere.

Let us no longer be so short-sighted as not to see, that the battle for Civil Service Reform is to be fought at our own doors, as well as at Washington. In the villages, in the cities, in the counties, in the States, all over the Union, incompetent officers, the sinecure representatives of caucusses, the overpaid favorites of demagogues, unworthy persons of all sorts, whom the people do not approve, are foisted upon the public treasuries. Official favoritism and party influence habitually cause not only a needless number, but an inferior class of persons, to be retained for the public service. It is generally thought to be a less offence to cheat the whole people than to cheat any one of them.

It is in vain to expect to economize and purify the federal administration, so long as corrupt streams of influence are poured upon it from every quarter of the Union. We must enter the contest at our own doors, and insist upon having worthy men for offices, and no more of them than is needed, in the small as well as in the larger spheres of politics. We must separate the political from the business class of

officers, and select the latter upon business principles. It should be regarded as a public insult, to recommend an unworthy man for office; and as something like a robbing of the treasury, to allow more officers or higher salaries than are necessary. At least, let us cease boasting of our glorious liberty, and of the best government under the sun, so long as our inability to put the fittest men into office, and our excessive taxation caused by official incompetency and corruption, proclaim us unworthy of these blessings.

There never was a better time than now, in this centennial period which recalls the glorious deeds of our ancestors, — the greatest of which was, they bravely met and overthrew the abuses of their own times, — to enter in earnest upon this vital duty of administrative reform in the municipalities, in the States, in the nation. Let us cease boasting of space or numbers, or rivers, or wealth, or liberty, or any providential gifts, or any thing not vital to our safety, and show the world that we are able to secure honest and efficient administration, than which nothing can be more valuable, and nothing can do more to advance the prestige of republican institutions.

There is an honest sentiment in the nation, which will sustain such an effort. There is no occasion for discouragement. The people are with us. Our principles are sound. We can say of them, as Pres. Lincoln said of those he urged against slavery in 1856, in those dark hours of defeat, just before the glorious resurrection of justice and liberty, "These principles of ours are vital. They will ultimately win; and they will endure when you and I are gone."

TREATMENT OF THE GUILTY.

By Rev. W. G. Eliot, D.D., of St. Louis.

Read at Detroit, May 13, 1875.

I ask your attention to a subject, the adequate treatment of which is far beyond my knowledge and ability. In its widest application, it is the greatest problem of religion and social science. If there were no sin, no guilt, no crime, there would be no place for penalty or forgiveness or mercy. The prayer of our daily offering would be fulfilled: the kingdom of heaven would be here on earth; the will of God would be our only and sufficient law. Out of wrong-doing and its penalties come all the complications of life, and a great part of its mysteries.

Even in its more limited application, to which I shall confine myself, "the treatment of those who have been convicted of guilt," I feel myself unequal to the subject, and have many times regretted the promise to introduce it here. But my suggestions, however crude, may lead to better things; and, although I may have no wise counsel to give, I may have the good fortune of eliciting it from others.

The three sources from which we may reasonably expect to obtain light for the proper treatment of criminals are, —

1. The philosophy of human nature.
2. The teachings of religion.
3. Practical experience.

If we can find any principles of treatment which satisfy these three instructors, we shall certainly be upon safe ground. We may also confidently expect, that the instructions will be perfectly harmonious, and that the violation of either is the violation of all. "Good in theory and bad in practice" is a true dictum only when the theory is partially false, or the principles taught are inadequately applied. The laws of social science are as exact and trustworthy as the laws of physical science; and no departure from them can result in permanent good. If we can find what human nature calls for, and a true religion teaches, we may be very sure of what experience confirms. Unfortunately, in this case, men have obstinately begun in the contrary direction. They have blundered into pernicious practices, and, calling their blunders experience, have hooted at every effort to introduce the reforms which humanity and religion command.

1. What does the philosophy of human nature, or, to call it by

another and more familiar name, what does common-sense teach, as to the proper treatment of those who have been convicted of guilt? Simply, that the guilty do not cease to be human, and should therefore be treated as human beings. That one sentence covers the whole ground. It includes every thing we have to say.

However aggravated the guilt, the criminal has been led into wrong-doing by the ordinary motives, under the like temptations, through the same errors and mistakes, which are common to us all. Notwithstanding his guilt, he retains all the capacities, affections, sympathies, and natural interests, which belonged to him in happier days. He is amenable to the same influences, hopes, encouragements, and fears. He retains the same necessity of self-respect, love of approval, and consciousness of right, the same feelings of remorse and self-reproach, the same craving for just and kind treatment, the same inward protest against injustice and wrong. I do not say that we find, in these respects, a normal and healthy development; for that would probably have prevented the crime. The wrong-doer is morally diseased. But, as in comparison with average humanity, it is a difference of degree, not of kind. Perfect moral health is not found anywhere; and those who most need the physician must be treated as having a common nature with the healthiest and best. Intellectually and morally, they may be morbid, unbalanced, ill-guided, unreasonable; but the only rational hope of their restoration is by skilful and judicious treatment to stimulate the good that is left in them, and thereby drive out the bad

Accordingly the first essentials in the treatment of the guilty are justice and impartiality. If we manifest undue tenderness and indulgence towards them, we forfeit their respect, and they feel themselves our intellectual superiors. But the most unruly, whether men or boys, recognize the reasonableness of justice, and will submit to strict or even to severe rules, when impartially and dispassionately administered.

Next in importance, and equally essential, is the exercise of kindness, sympathy, and thoughtful consideration, — not pity and condescension, as if we were superior beings, for that spoils every thing; but genuine kindness and humane regard.

Having established this basis of treatment and the relations which it implies, we may then confidently appeal to the criminal by the same motives that are the springs of action everywhere and among all men, — self-interest, social affections, hope, ambition, emulation, the love of praise, fear of blame, the natural and penal consequences of wrong-doing, and whatever else may constitute in ourselves the incitements to good, and the restraints from evil.

We must get rid of the absurdly prevalent notion, that when the

man crosses the prison-threshold, and puts on the prison-dress, he becomes a different being, over whom force is the only effectual restraint, and whose only governing motive is fear. Treat them like brutes, and they become brutal. Treat them like men, and their manhood can be fully restored.

That prison-dress, by the way, is a degradation in itself; a brutalizing influence, for the continuance of which there is no adequate excuse. It marks them as Pariahs, offcasts of humanity. It is a brand of suspicion and contempt. It is a standing declaration that the prisoner cannot in any way be trusted, and that the relation between him and his keeper is that of warfare from first to last. To make escape more difficult, is its only excuse; but it would be better, by rational methods of treatment, to make escape an object of less vehement desire. Few men would voluntarily incur the risks of attempted escape, if they felt themselves to be held under just and humane law. Prison revolts and escapes are generally the result of long-continued cruelty, oppression, and despair.

The majority of convicts, when first entering the prison, are not hardened or hopeless in guilt, and should not be unnecessarily disgraced. The average of personal character in the prison is not so much below that of the surrounding world as is generally supposed. Give them any thing like a fair chance, and a large part of them could be reclaimed. Many of them are penitent, and full of self-reproach, and would only be too glad to see the way to a better life. Why should we shut the door in their faces from the very first, and put every discouragement in their way? Make their life endurable, and inspire them with hope, if you would hold them under easy command.

2. What instruction does religion give in our treatment of the guilty? I do not mean any special theological system, but religion in its largest and most universal sense. On questions of humanity and practical morality, we may reasonably expect that natural and revealed religion, coming from the same authority, will concur. Accordingly the Great Teacher has declared, that, in our social relations, "to do as we would be done by," is the one command upon which all the law and the prophets depend. By application of that rule, the whole question is settled. What treatment could we rightfully claim from law-makers and officials, and from society at large, if we were convicted of crime? Most plainly, justice and impartiality and kindness, both in the administration of law, and the execution of its penalties. Religion admits no vindictiveness, no unnecessary harshness, no contempt, no oppression. Its aim is restoration, not destruction. Its desire is to save that which was lost, not to insure its ruin. It authorizes no man to say, "Stand apart, for I am holier than thou." The difference between the

best and worst is not enough to justify that. "If any man be overtaken in a fault, ye who are spiritual" — that is, faithful and good — "restore such an one in the spirit of meekness; considering thyself, lest thou also be tempted." It is often a difference of temptation more than of virtue. "Who made thee to differ?" is a trying question to ask of the sanctimonious and self-righteous.

We might follow this train of thought indefinitely, if there were need; but those who have thoughtfully considered Christ's treatment of the guilty will need no other argument here. Among all the glaring contradictions between Christianity and Christendom, none is greater than that afforded by the unchristian, barbarous methods of penal jurisprudence and prison-discipline, as contrasted with the words and example of the Man of Nazareth. The Christian religion says, "Restore such an one." Christian society says, "Crush him." Religion would lead him to repentance. Society puts up impassable barriers, and makes repentance impossible.

I am no advocate of sentimentalism, or of weak indulgence of crime. A pampering system, which shrinks from just punishment, is as bad in its results as systems of undue severity. The wrong-doer ought to suffer, and society has a right to be protected from his crimes. The criminal forfeits his right to liberty, so far as the protection of society requires; and he has no right to be supported in idleness at the general expense. Much less has he a right to be supported in a degree of comfort which the industry of honest men fails to secure. Both the natural and legal penalties of his wrong-doing, he must expect to endure; and to shield him from them is a mistaken philanthropy at the best. But religion and humanity unite in commanding us to keep the door of reformation open, and so to conduct the discipline and penalties of imprisonment as to fit men for a return to honest industrial pursuits.

3. We next turn to the lessons which experience teaches; but unfortunately here we are compelled to speak in general terms. We can only infer what would be the practical result, under a humane and rational system, by the comparative results among the systems actually tried. Nowhere yet, so far as I know, has the philosophy of human nature, or the spirit of Christ's religion, been introduced as the controlling influence of penal legislation; nor has a jail or penitentiary ever yet been built, with this as the guiding architectural idea.

But, in general terms, we may confidently say, that in proportion to the severity, harshness, and cruelty of penal laws and prison-treatment, has been the pernicious effect, both upon the criminal, and society at large; and, in proportion as rational and humane ideas have been introduced and applied, the total amount of crime has been lessened, and

the chances of reformation have been increased. I make that assertion without fear of contradiction. The history of prison-discipline and prison-barbarity, through all gradations of horrors, affords ample material for deciding the merits of harshness and cruelty. The ameliorating influences of modern civilization have led to some partial trial of a better way; not enough, perhaps, for demonstration of results, but enough to prove an established tendency.

The progress of improvement is very slow. Our statesmen are but half instructed in the laws of social science; our politicians turn every thing into party-machinery; and old abuses are perpetrated, half through ignorance, and half because they can be turned into profit or power. The fearful, dismal system of solitary confinement yet finds advocates, although opposed to all the principles of man's intellectual, moral, and social nature. The still worse system of leasing and contract, which is nothing else than legalized slavery, is the favored method in many States. It would seem as if our law-makers expected to reform men, and make them good citizens, by taking away all motives for good behavior, by unfitting them for a return to civil life, by filling their hearts with hatred, by treating them as if they were the enemies of mankind. Truly they make them such, and society reaps the reward.

What are the objects of penal jurisprudence and prison-discipline? Plainly, the protection of society, and the reformation of the criminal. The last named is secondary to the former; for philanthropy is not the primary object of prisons and criminal law. The protection of society stands first. But the reformation of the criminal is the most effectual and the only permanently effectual means to the attainment of that end; and no system which does not tend directly to this result, or which does not make it prominent, can permanently succeed. The punishment of crime, as such, is of course to be taken into account; and all penalties should be carefully adjusted with reference to ethical principles, to the natural sense of right and wrong, and to the moral standard of the community. But the essential purpose of criminal law, and all its agencies, remains the same, — the protection of society by restraint of the wrong-doer, by the just penalties imposed, by the deterrent influence thereby exercised upon the exposed classes of society, and, above all, by the reform of the prisoner, and his restoration to society, "clothed and in his right mind."

Advancing civilization attaches more and more importance to the agency last named, so that it is regarded by many as the end rather than the means. The most observant students of social science, of the present day, if asked how society is to be protected from violation of law, would probably answer, "By the prevention of crime, and by the reformation of the criminal."

The answer involves a complete revolution in the old systems, and an inauguration of a new era in the treatment of guilt.

The true secret of prison-discipline is to be found in the principles already stated. Let the prisoners be treated like human beings. I do not say to coax them, or to make their condition so easy as to change their punishment into reward; but to treat them with justice, to govern them, not by brute force, but by appealing to the same motives which govern other men; make it their interest to work industriously, and to behave well. "If they will not work, neither let them eat," or at least reduce their diet and all their privileges to the lowest possible mark. Reward them for diligence and good behavior, by giving them a just share in their earnings; either in added comforts, or by sending to their families a part of their wages, or by placing it to their credit for their own use when discharged. I have no doubt, that under such regulations, and with proper supervision, prisoners could and would support themselves, so as no longer to be a burden to the State. What is far more important, how plain is it, that the influence of prison-life would be greatly improved, and the discharged convicts, having been educated to a new life, would become, comparatively speaking, reformed men. Now, after weary years of imprisonment, in which the principles of enlightened humanity have been fearfully disregarded, they return to society, full of vindictive hatred, morally and intellectually educated for new and greater crimes.

There is nothing visionary in these ideas, though inadequately expressed. Already, in different institutions, they have been partially tried, as in the Crofton system of Ireland, the Norfolk Island experiments of Capt. Monochacha, the Detroit and Alleghany Workhouses, and elsewhere. Exactly in proportion to the faithfulness and persistency of trial, has success been attained. Methods of treatment may vary indefinitely; but we can never safely depart from the laws of human nature which are the foundation of social science, nor from the Christian principles which are the acknowleged but not the practically accepted basis of Christian civilization.

PROCEEDINGS OF THE DEPARTMENT OF HEALTH, AT DETROIT, MAY 11, 12, AND 13, 1875.

In answer to a call issued from the Department, a public sectional meeting was held during the whole of the 12th and half of the 13th of May, at which were read completed and authorized reports from the committee of the Department, upon two subjects; viz., "The Nervous System as injuriously affected by Schools," and "School Gymnastics." Brief communications, made in response to an urgent public demand for information, were also presented by the Department, concerning Defects of Sight, the Care of the Eyes, Medical Supervision of Schools, Systematic Inspection of Schools, Statistics of Sanitary State of Schools, Statistics of Rate of Growth of School-Children, and School Architecture. The latter series of papers must be considered as provisory, rather than as containing the full expression of the Department's opinion. The Secretary's Report, explaining more fully the character of the work done, was read without debate, at the first general session of the Association, on the evening of May 11; and an abstract of it is here prefixed to the other papers: —

Report of D. F. Lincoln, M.D., Secretary of the Department of Health.

The report presented a year ago to the Association contained a summary of the plan then recently adopted by the Department, for studying school hygiene. It may be found in No. VII. of the Journal of the Association, printed September, 1874. Since then, the plan has undergone some slight modification. The following is the list of topics which the Department now intends to treat of: —

1. Heating and ventilation.
2. Light, and condition of the scholars' eyes.
3. Seats, and deformities traceable to them.
4. Architectural plans.
5. Apparatus employed in instruction.
6. Gymnastics.
7. Condition of the nervous system.
8. Condition of the organ of hearing.
9. Condition of the organs of pelvic cavity.

10. Drinking-water.
11. Sewerage and water-closets.
12. Commissions for sanitary inspection of given school districts.
13. Brief of a law establishing the office of medical inspector of schools.
14. Statistics of height and weight of school-children.
15. Contagious diseases in schools.

Of these, Nos. 6 and 7 are before you. Provisory reports upon Nos. 2, 4, 12, 13, 14, are also ready. Nos. 3, 8, 11, 15, are assigned to competent hands; while Nos. 1, 5, 9, 10, are not assigned.

Care has been taken, before presenting matter to the public, to secure it, as far as possible, from error in statement; to this end, we have been accustomed to criticise all papers, and to order their revision in accordance with such criticism as appears justified. This is usually done at the regular monthly meetings of the Department. Further criticism is expected through the press, and from private individuals; and, before an article finally takes its place in the Journal of the Association, it has undergone several revisals.

It is possible that the entire series of researches, which is not yet complete, nor perhaps will be for a year or two longer, will be published at last in a single volume, for popular use.

Attention is specially called to certain methods and formulæ, which have been used in several examinations of school-children, instituted within the past year, the results of which are to be presented at these sectional sessions.

(*a*) Those used in Philadelphia, during the past winter, under the orders of the Board of Control of Public Schools. These examinations are almost the first — certainly the first of any magnitude — ever carried out in the United States. The results have been partially tabulated; and a printed broad-sheet is ready, containing a great deal of information concerning the sanitary condition of the grammar schools in that city. But as the total number of separate reports is nearly four hundred, and there are many questions to be answered on each report, the labor of tabulating has been immense. It is fitting to add that the credit of organizing these measures is very greatly due to the Philadelphia Social Science Association, which we are honored in being permitted to call a branch of the American Social Science Association.

Similar investigations, with the same series of questions, have been set on foot in St. Louis, by the public-school authorities; but no results have yet been published.

(*b*) Those used by Prof. H. P. Bowditch in carrying out examinations of the height and weight of Boston public-school children, in accordance with the request of his department. This is officially sanctioned by the school authorities; its execution will probably be a work of two years or more; and in its results it will furnish a contribution to the science of man, showing the present rate of growth of our native and foreign population at every period of life, from five up to eighteen years of age. Such investigations, if they could be carried out in other parts of America, would prove of the utmost value, as furnishing a standard for comparing our populations with each other, and with those of Europe.

(*c*) Still another method of statistical research will be illustrated in the

plans framed by Dr. C. R. Agnew of New York, a member of the Department of Health, who, in connection with others, has already examined the eyes of a great many school-children in Cincinnati, Brooklyn, and New York. The result will show how many scholars of different ages in various cities have defective sight; and inferences of great importance will naturally spring from such observations. The same has been done, and is still doing, in St. Louis, Philadelphia, Albany, Rochester, and elsewhere. Dr. Hasket Derby, in Boston, intends to visit Amherst College every year, and examine the successive classes of young men, so that a just idea may be formed of the rate at which near-sightedness makes progress from year to year among a selected number of men at study. The continuous observations which he plans have a peculiar interest.

The secretary has also prepared, in outline, a set of rules for the care of the eyes, which will be read in connection with the above. Another outline has been drawn up by several members of the Department, for the purpose of bringing before the public the rules which architects ought to follow in building schoolhouses, with a view to the health of their inmates. The importance of having these points clearly understood by architects is extremely great; and I can hardly think of any subject connected with school hygiene, around which more interest would gather than around this, of "sanitary requirements of schoolhouses."

It is not yet possible to say what subjects will be ready for presentation at the next general meeting; but we hope to have ready more than one full report, with a great deal of statistical information (more or less incomplete) regarding the health of school-children.

The first session of the Department of Health was held in the Council committee-room of the City Hall, Rev. Charles H. Brigham of Ann Arbor presiding.

The first paper was as follows: —

THE NERVOUS SYSTEM AS AFFECTED BY SCHOOL-LIFE.

By Dr. D. F. Lincoln. Read May 12, 1875.

You will not fail to be struck with the fact, which meets us at the very outset of our inquiry, that an intimate connection subsists between this subject and many others standing upon the list which has been drawn up to represent "School Hygiene."

This connection, however, furnishes no obstacle to the execution of our plan of simultaneous joint authorship. Only one of the list covers ground belonging, in a strict sense, to the present investigation. That subject is the one alluded to under the title "Organs of the Pelvic Cavity," — a title designed to include all those derangements of health, about which so much has lately been written, occurring in

young girls during the process of sexual development. About this matter I shall say very little, both because of my own want of special fitness for the task, and because it seemed to the department, that the time had not yet come when a judicially impartial account could be given of this subject which has of late aroused such bitter and general controversy. Perhaps in a year or two this may yet be done; but we have as yet made no attempt whatever to examine into the matter.

The next difficulty, however, is one of far greater moment; and I may state it as follows: —

Our entire nation is believed to be suffering from certain wide-spread sources of nervous degeneracy. Our children are but a part of the nation, and must suffer along with the older members of the population. How shall we discriminate between what is national, and what is simply scholastic? Give the child a constitution derived from excitable parents; a nutrition in infancy and childhood from which iron, lime, and the phosphates are mainly excluded; a diet in later childhood most abundant but most unwholesome, and based upon a national disregard of the true principles of cookery; a set of teeth which early fail to do their duty; a climate which, at its best, is extremely trying, killing either the aged by excessive cold, or the little children by a tropical heat; an atmosphere so deprived of moisture, that the most casual observers speak of it, and men of science consider it as capable of modifying our constitutions most profoundly; add to these influences those of a moral nature, arising from the democratic constitution of our society, spurring on every man, woman, and child to indulgence in personal ambition, the desire to rise in society, to grow rich, to get office, to get every thing under the heavens; add a set of social habits, as applied to the life of young girls and boys, which is utterly atrocious, which robs so many of them of their childhood at the age of ten or twelve, and converts them to simpering, self-concious flirts, and men of the world, *rusés*, and independent of control, a depraved and pitiable breed of "little women and little men;" add finally the fact, that we have now a population of six millions dwelling in cities of over one hundred thousand inhabitants, and exposed to those deteriorating influences which notoriously belong to great cities: give the child these conditions to grow up under, and can you wonder that he or she "deviates from the type" (as it is fashionable to say) of the sturdy Anglo-Saxon pioneer who settled this continent? And can we wonder that educators, persons deeply interested in their profession, and sincerely conscientious, should protest against the charges brought by physicians against their systems of instruction, should protest against the very title of this paper, and

should appeal from the laziness and folly of parents, and what they consider as the professional prejudices of medical men?

With these difficulties, inherent in the subject, you will pardon me, if I succeed in doing no more than positing the question. I nevertheless think that I shall show that schools do cause a certain amount of injury of the sort called "nervous;" but you must not look for any thing like a statistical exhibit of the *amount* of harm done. The method of investigation, which results in good statistics, has been cultivated in precisely this direction in several cities within the past year, as in Philadelphia, St. Louis, New York, and elsewhere; but the opportunities and the working-power of a single man are but very small, as compared with the amount that ought to be done even in a single city. The present paper therefore aims, first, to exhibit the physiological laws which govern the subject, and to show how school-life is capable on the one hand of benefiting, and on the other hand of injuring, the fabric called the Nervous System; and, second, to illustrate these principles by citations from the opinions and observations of about seventy persons, physicians, and teachers, who have favored me with correspondence.

PART I.

PHYSIOLOGICAL LAWS GOVERNING THE MENTAL AND NERVOUS HEALTH OF PUPILS.

In the most general terms, the nervous system may be characterized as an accumulator, a distributor, and a regulator of the forces of our animal economy.

By it the mind is informed of what may be seen, heard, felt, or touched; by it the perception is stored up, the thought remembered, the process of thinking carried on. By means of it, the beating of the heart, and the circulation of blood through the body, are regulated. If there is a demand for fresh blood, in order to sustain the activity of the brain, a portion of the nervous system is charged with seeing to it that fresh blood in greater quantities is sent to the brain. By means of nervous action, the tears flow, the mouth is moistened when we eat, the stomach is enabled to digest its food, and the bowels to carry on what the stomach begins. And by it, also, the muscles are enabled to act, and to transform chemical force into the forces of motion and heat. In fact, the muscular functions are in a sense nervous functions. Not only that nervous force is consumed in the performance of muscular acts, and is reciprocally strengthened by such performance, but also that the muscles themselves seem, in the ultimate analysis, to be simply a spreading-out of nerve-tubes, as the foliage of a tree is the expansion of its boughs and branches. Hence, when speaking of the

department of medicine called neurology, or the special treatment of nervous diseases, we are obliged to include the diseases of the muscles themselves under the same heading.

I have not begun to exhaust the statement of the functions with which the nervous system is connected, but will just call your attention to the fact that every one of these relations is doubly reciprocal, like the effect of a pair of mirrors placed over against each other. Nothing happens to any organ which has not its effect upon some part of the nervous system; and nothing happens in our brains, or any other nervous organ, without producing its effect upon some organ not nervous.

It is well to state here, in order to enable you to anticipate a little the results of this paper, that the actual derangements of the nervous functions which are commonly believed to be produced by improper influences at school are the following; viz., —

First, a group collectively termed "Neurasthenia," composed of debility and general depression, dyspepsia, sleeplessness, irritability, headache; then nosebleed, a symptom of congestion, which seems quite rare in America as compared with some parts of Europe; then chorea or St. Vitus's Dance, a disease of childhood proper; then neuralgia, hysteria, irritable spine, or spinal anæmia, and menstrual anomalies.

This list was given in a printed circular of inquiry issued to physicians, and from their answers it appears that little remains to be added to the list. But I must add, that several correspondents have of their own accord suggested other evils of more or less importance; as insanity, self-abuse, injury to the urinary organs from long confinement, deformities of the chest and spine, and typhoid fever.

With this general view of the scope and tendency of our inquiry, let us now pass to the consideration of the question, "How may school influences directly benefit the nervous system?"

In the first place, the school may provide for a reasonable degree of physical exercise, which every scholar should perform unless excused by his physician. There is very little chance for healthy sports in great cities; and it is precisely in these cities that the greatest number of hours is spent in schools. If civilization takes from its members the country air and country sports which are the natural means of health, civilization is bound to make good the loss to those who are too poor to make it good for themselves; and that means nine-tenths of the people in cities.

As regards fresh air, and other hygienic essentials of schools, the attempt is sometimes made to excuse deficiencies by saying that "the scholars are better off in school than in their own wretched houses."

This excuse is apt to prove fallacious. It is our duty to ask, when

such remarks are made, "*How much* better off are they when in school?" Is the air at home charged with fourteen parts of impurity, for example, and that in school with only twelve or thirteen parts? Such a comparison reflects no credit upon the school: if both places are blamable, then our duty obviously begins at the school, which we build and furnish, and to which we compel the children to come.

But let us not delay over this sufficiently obvious point. What we desire to know just now is, whether a thoroughly good school is a positive benefit to physical health. Granting that the air is pure, and the surroundings are all hygienically perfect, are the work and the discipline of schools beneficial, *per se?*

And first, as to the work, the simple mental work; is that capable of doing positive good?

The answer to this question is as follows: Pure mental work, quite free from what is called "feeling," is not possible to a conscious human being; but pure work, accompanied by the simple feeling of satisfaction termed "interest," in a moderate degree, acts on the system like any other healthy work, by consuming the chemical elements; if the brain is at work, one sort of change goes on; if the muscles, another sort; but brain-work and muscle-work equally create a demand for fresh nourishment, and this demand constitutes a healthy appetite for food. It is fully understood by "brain-workers," that certain studies tax the endurance of the entire system as much as the severest bodily toil. Persons with good brains are fatigued by mental labor as much as persons with good muscles are by bodily labor. Now, I do not mention fatigue as a desirable thing, but the processes which lead to fatigue are good if kept within reasonable bounds; and I hold it to be physiologically correct, that these processes are much alike, though not identical, in the acts of thinking and of muscular motion. Indeed, voluntary muscular motion is absolutely dependent upon a supply of nervous force, which is probably generated in a portion of brain lying within the temples. When muscles are palsied, their nerves are pretty sure to be affected; and when nerves, their muscles: hence it is often extremely difficult to say whether a given disease of either organ begins in nervous tissue or in muscular tissue.

Mental occupation, like all other natural occupation, is therefore good; or, at least, it has a presumption in its favor. But the value of this work is vastly enhanced by the methodical way in which a good school enforces its performance. Our teachers, in many cases, deserve the greatest credit for their judicious firmness in restraining from overwork, as well as in requiring the full amount of work; and I know well, that adult students would often be benefited by such regulations as would prevent them from over-driving their intellectual machine.

Why, then, can we not make our children work with their brains, and trust nature to develop their muscles? I believe there is a special reason why we may not do this, and somewhat as follows: The nervous organs require nutrition like other organs; they are dependent upon the blood, which conveys to them what is required to repair waste; and the blood is again dependent upon the heart and the blood-vessels, which pump it to the points of supply. Now, the heart and the blood-vessels are muscular organs; their capacity to force the nutritious fluid to its destination depends on the amount and the good condition of the muscular tissue they contain. A strong pulse is needed by a strong brain; and if we want a strong pulse we must strengthen the heart. And in no way can this be done except by muscular exercise, which drives the blood on to the heart, distending and stimulating it in such a manner that the organ gradually increases in size and firmness, growing vigorous in sympathy with the other muscles of the body. Of the danger of excess in this practice, I will speak later.

Of the muscular structures of the chest, there are some which have no particular use except to assist in breathing; these, the respiratory muscles, need a similar development through training, in order that pure air may be largely introduced into the lungs; a process which you know to be indispensable to the proper nutrition of the body, and the performance of the processes of oxidation required by all the tissues.

So far, we have seen that muscular activity is indispensable, even to the health of the brain; while, as regards the action of the brain in thinking, we have succeeded only in establishing a presumption in its favor. This being the case, — the one being essential, the other only permissible, — it would seem as if those who exercised their muscles stood a better chance of perfect health than mere brain-workers. It is commonly assumed, that boys are necessarily in better health when let run freely in the open air without schooling, and that day-laborers are the healthiest part of the community. But these assumptions are greatly neutralized by two facts, — the privations undergone by the poor, and the noxious effects, in any class or age, of excessive muscular exertion, which is certainly capable of doing as much harm as over-work of the mind. Consumption, various forms of heart-complaint, of palsy, of muscular disease, not to speak of the great enemy rheumatism, are the penalties of excessive muscular effort. Stupidity is another penalty, deserving serious mention.

The laboring classes have diseases as many and as serious as those of the intellectual classes. Nay, more: it would seem from statistics that the latter are much *longer-lived* than the former, however it may be with their health. Clergymen, lawyers, physicians, merchants, sci-

entists, and men of letters live very much longer than the classes that work with their muscles chiefly; the figures are given differently by different authorities, ranging from fifty-six years up to sixty-five as the average length of life in the former, while the average life of all persons who reach the adult age is about fifty years. In the upper and professional classes in England, statistics relating to nearly forty-eight thousand persons have recently been published by Charles Ansell, showing that the average annual mortality in one thousand, of those under sixty years of age, was 10.46 as against an average of 17.65 for all classes in England and Wales.

These figures may be taken for what they are worth: I use them only to rebut the common arguments in favor of the necessarily superior health of mere hand-workers. But another turn is given to the argument by those who assume that the educated and the rich, though longer-lived, are more subject to chronic troubles, as dyspepsia, neuralgia, and gout. This view is most incorrect, I am sure, as regards the population of large cities. No one who has had experience in dispensaries can think that the poor have as good health as the well-to-do classes. The well-to-do are those whom Nature has blessed with tougher constitutions, greater powers of mental work and endurance; persons of higher endowments in every way than those possessed by the poor: hence, while they know better how take care of their health, they possess also better means for doing so. Theirs are the sunny streets, the wholesome quarters; while to the poor belongs the gift of large families, and a doubled or trebled rate of mortality in children. Hence also, permit me to say, upon them rests the imperative duty of helping their weaker neighbors to obtain a reasonable share of health and intelligence. The problem is, however, complicated; and it is impossible to give full value to all the arguments in this place.

So far we have seen, from several points of view, that the presumption is in favor of the wholesomeness of mental work, as required in a well-governed school. One reason for this has already been given. It is good for the body, because it is bodily work; because as such it furthers the processes of chemical transmutations, and hastens the renewal of tissue; and because it is better for us to have this renewal, a fresh body — one composed of recent elements — being more vigorous in all its functions than a stale and rusty organism. This is the fact as it looks from a chemical point of view. But we scarcely need technical language in order to understand this. It can be stated in every-day phrases; and it will be instructive to make a re-statement of this sort, which I will now do.

Our life is largely made up of appetites or cravings of various sorts.

The most familiar of these are the cravings for food and drink, for breath, for sleep, for air and sunlight. The presence of any one of these, in a healthy person, shows the existence of a chemical exigency or crisis, which requires the addition of some element, — carbon, oxygen, nitrogen, fat, starch, animal fibre, salt, water, and so on; or the introduction of some force, as light, heat, or atmospheric electricity. If these desires are not gratified, the health suffers. Now, there is another class of cravings, equally important, and equally imperious in their claims: I mean the various desires to *expend* animal or mental force, — the longing to exert muscular energy, the desire to move about after having sat still for a long time. The entire range of our mental powers furnishes us with examples of a similar sort; as the gifts of speech, of laughter, of musical genius, of the power to observe, to paint, carve, or otherwise represent, the power to command other wills, the capacity for greatly loving other persons, for receiving or giving sympathy. All these must be exercised by those healthy human beings who possess them, under penalty of a loss of well-being.

Now, it is evidently impossible to exercise all our faculties at once in such a way as to bring each to a state of the utmost development. It is the business of an educator to see, first, that the faculties essential to well-being are developed, — the muscles of respiration, by singing, dancing, running, and childish athletic sports; the muscles of the will, by similar methods, and perhaps gymnastics; the intelligence, by school instruction of various sorts. But, while doing this, he should bear in mind those traits of childhood which are most irrepressible, and should both guide them and be guided by them. Muscularity — or more rightly expressed, a liberal indulgence in muscular sports — is the craving of healthy boyhood: if denied, no amount of mental occupation will take its place. On the contrary, mental stimuli are most dangerous to a boy who is physically idle, and only tend to hasten those sexual crises (so fatally ignored by many educators) which are sure to come, and to place a certain proportion in peril both of health and morals. I am speaking of a great evil, and one little understood; for which the remedies are to be found in a liberal stimulation of all the nobler parts of a boy's nature at once, — his will, his courage, his fortitude, his honor, his sense of duty to God and man, his interest in some mental pursuit.

As respects girls, there is no doubt that they are capable of taking as keen enjoyment as boys in muscular exercise, though of a somewhat different nature.

That it would be for their good to strengthen their wills and their courage by such methods, no physician can doubt. But the obstacles

to such development are very great, especially in cities, and in all places where fashion imposes a limit to the expansion of the lungs, and cuts off the indulgence in the pleasure of breathing.

I trust enough has been said to direct your attention to muscular training as a branch of education. But it would be a neglect of duty did I fail to add that the whole matter must be under control and regulation, and that forced and violent exercises in gymnasiums, or out of them, are capable of doing great harm. It is a great mistake to work the brain till it can do no more, and then, feeling fagged out, to take violent gymnastic exercise or a long walk. Mothers know that their little boys *can* make themselves sick by playing too hard. Some children cannot play too hard, and some adults can be Hercules and Apollo in the same day: these are few. I would suggest, that a rule of the following sort be laid down for those who are old enough to follow it: "Never let the bodily exercise be so crowded into a corner by work that you cease to enjoy it, to relish it as a well person relishes food; but, as to the amount of exercise you take, let that be governed by the appetite for it. And do not feel bound to make your biceps big; for the muscles which do not show — those lying between the ribs, under the shoulder-blade, and the diaphragm — are more important, and are suitably developed by systematized breathing, by vigorous walking, and a little running or lifting, if you can bear it." Such advice is, on the whole, more judicious for adults, who have severe tasks of a mental nature, than would be the indiscriminate recommendation of gymnastics.

I come now to another set of causes, which ought favorably to influence the health of scholars. I refer to the fact, not much understood in a practical way, that *happiness* is of itself one of the surest sources of health; or, in medical terms, that joy is the best tonic we possess. Pleasurable sensations are imparted by all efforts made willingly, if within our powers. The scholar has that source of pleasure constantly, if he is well managed. He is interested; and interest is the chief factor in happiness, while want of interest is a sort of hell on earth. He has the sense of mastering difficulties, of conquering his own weakness and ignorance. His cheerfulness is promoted by making the work brisk and vigorous, both in recitation and during study. He is conscious of success and of gain, and that without reference to the standard of his fellows, but by reference to himself. His self-control and habits of order are strengthened; which must indirectly prove beneficial to his health. And, finally, he is conscious of having a friend and sympathizer in the person of his teacher; or, if not, there is serious fault to be found somewhere. Either the teacher is deficient, or else the class is so numerous that it is impossible for him to know the characters of his pupils.

Now let us turn the picture, and see the reverse. What *harm* is done through injudicious schooling?

In answer, let me say, that, if mental enjoyment does good to the system, the sensation of inadequacy to one's task is a source of acute suffering and injury. Pain felt in a nerve is a proof that the nerve is not duly nourished, or has been tired out by overwork; and, in accordance with this fact, we find that its proper function, that of distinguishing objects by means of touch, is weakened during an attack of neuralgia. In muscles, fatigue easily passes into pain, which may quite cripple one for a while, as when a person begins too violently with gymnastic exercises. But in the mind we feel the pain called depression of spirits, when required to discharge mental functions beyond our strength. The sensation is like that felt by insane patients suffering from Melancholia, to whom life is only a burden, and suicide the only apparent duty. But it is rarely the case that such a condition occurs in young children. If overworked, their minds are apt also to be strongly interested, their feelings in a state of tension; their ambition acts as a spur, and does not let them know how tired they are; so that irritability, rather than depression, is characteristic of children suffering from school tasks. And be it said, that this state is most needlessly aggravated by a great many petty restrictions and points of discipline, which keep the child in a state of continual apprehension. He is perhaps marked for tardiness, and hence eats his meals in a state of trepidation lest he come late to school: he is marked for each recitation; he is constantly inquiring how he stands; and, if he is ambitious, the consciousness of impending destiny is ever present to his mind. I speak not of such folly as giving a child a demerit for not coming to school five minutes before the hour appointed; or giving merits for the performance of tasks like sweeping down the stairs of the schoolhouse, or sharpening the other children's slate-pencils! But we are called upon very strongly to condemn all points in the management of schools, which give rise to anxiety, apprehension; exaggerated feeling, in short, of any sort, whether of joy or pain, in the minds of scholars.

But leaving this point, and returning to the consideration of the effects of overwork: these effects are developed either by excess in quantity or by a monotonous strain of the faculties in one direction.

As to excess in quantity, a child is capable of doing a good deal of work; but it must be done under the conditions of perfect sanitary surroundings, and, above all, of frequent rest. "The child's brain soon tires," says West; "and the arrangement, so convenient to parents, of morning lessons and afternoon play, works far less well for it than if the time were more equally divided between the two." The need of

frequent recesses is admitted by all; but I find decided differences of opinion among teachers as to how frequent they should be. If a child of eight or nine years works half an hour, he may be perfectly refreshed by five minutes' rest and amusement, and ready to go to work again; but, if he is kept at his tasks for four half-hours continuously, twenty minutes will not begin to suffice to bring him up to condition. A long unbroken session takes out of a young child more than he can make good by repair before the next session; and the total of these excesses of waste are subtracted from his total growth, stunting his body and mind together.

Deprivation of sleep is another factor in producing exhaustion. And let it be remarked, that the worst thing about "home lessons" is the danger that they will be studied late in the evening, and, by the congested condition of the brain thus produced, prevent the child from falling into a sound, refreshing sleep.

Deprivation of food often occurs. A child under twelve cannot usually go more than four hours without food; and privation of this sort, though willingly borne by the zealous scholar, makes itself felt at the next meal-time by an incapacity to relish or to digest what is set before him. Schools should always make reasonable provision of time and place for the scholars' luncheons; and, if there is a long session, parents ought to be expressly informed of this, and requested to furnish their children with something suitable. As for the regular meals, a parent is inexcusable who will permit a child to miss them, or to take them irregularly, or to lose its appetite for them, except in case of war, insurrection, or peril by sea.

There is a condition, not infrequent in the adult occupants of schools in which a person seems to have used up all the surplus of vital force he possesses. There is no remedy for such cases but a protracted rest from all that can tax the powers.

The same condition may be observed in older children. But in the younger — say those under ten — the danger lies more in another direction. Educators, whether teachers or parents, are always liable to forget that the extreme volatility of a child cannot be conquered, but belongs to his nature; hence his tasks are always liable to be too monotonous — more like what an adult would think suitable than what a child would really be best suited with. Now, the overstraining of a faculty in any one direction is a most serious matter. If a clerk is kept too long at writing, the muscles which hold his pen grow weary; the weariness grows chronic; pain and constraint begin to be felt whenever he takes up his pen; one muscle gives out entirely, and he tries to make its place good by adopting a new plan of holding his pen; but the new way has again to be given up, and the entire process of writ-

ing soon becomes insupportable; he may even be prevented from work by muscular spasms in the fingers. The remedy consists in three things, — first, rest; second, treatment of the wearied muscles; and, third, regular voluntary exercises of the other muscles — those which are little or not at all affected — of the hand and arm. In other words, the hand has to be drilled into a habit of distributing its forces among various functions. The amount of mental and physical energy which would carry a man easily through a day's work on a farm may thus, if concentrated upon one set of muscular functions, set up a disease in the latter, which will end in paralysis. Nor is this true of the hand alone. A whole class of these diseases exists, denominated by the Germans *beschäftigungs-neurosen*, or professional diseases. Thus the shoemaker's cramp, the ballet-dancer's cramp, the "hammer-palsy," of sledge-hammer men, and the myalgia (muscular pains and debility) of sewing-women.

We often hear a distinction made between "natural" and "unnatural" forms of bodily exercise; and the preference is instinctively given to the former by most people. Now, the very best forms of natural exercise are those which develop a rhythmic sequence of effort and pause. Walking, dancing, and running never exercise the two halves of the body at the same time in the same way; the efforts may be constant, but they are relieved by alternations of right and left. In fencing, the old masters try to teach a similar balance. It is not in man's nature, when furnished with a pair of organs, right and left, to use both at once in an absolutely identical way. Standing in a military position is the most fatiguing thing possible. And if we turn to an organ like the eye, which is capable of severe labor of a more intellectual nature, we find that, though both retinæ are used together, yet both take turns, at intervals, of resting, so that we actually, while looking intently at an object, do lose sight of it, though unconsciously, for a second, upon the right, and, presently, for a second, upon the left side, and so on. Riding presents an instance where a pair of muscles must be kept rather firmly and steadily stretched to clasp the saddle, but, in riding, the whole body of the man is subjected to the rhythm of another body, that of the horse, so that a multitude of unconscious movements are made in the most perfect rhythm back and forward, to right and left, by the trunk. I need not speak of the respiration, the beat of the heart, the natural movements of digestion. Worshippers in the true temple of Hygiea use for the most part an antiphonal service; and the antiphony of effort and pause in mental operations gives the most beautiful — as the Greeks would say, the most musical — stimulus and expression to the mind.

We do not as yet realize how intellectual an organ a muscle is.

Those of the face are called mimetic, or muscles for the expression of emotion; but every voluntary muscle in the body, when in action, expresses the energy of one of the most complicated intellectual processes, though one little thought of as such, — that of volition. And I cannot refrain from tracing the analogy a step or two further, between the case of writers' palsy, and that of nervous excitability and exhaustion from severe tasks at school. The points of analogy are as follows: the child's mental trouble shows itself by unreasonable behavior, fits of ill-temper quite foreign to his proper disposition; and the man's muscular trouble is commonly associated with strange and purposeless jerkings of the muscles, equally foreign to purpose and reason.

And, still further, if you observe a man trying to write in this disorder, you will see that the anxiety of the effort makes him ten times worse, as if his hand were afflicted with stuttering; while you well know that the anxieties arising from emulation, contention for prizes and rank, the unceasing effort to hold the tongue, to sit straight, to reach a given goal at a given time, wear out a child vastly more than long, hard lessons.

I had thought to enlarge upon the latter point, but will rather leave it to my correspondents, from whom you shall presently hear expressions of opinion upon the matter.

Although the subject of Diet is so essentially connected with Education, yet I must at present refrain from entering into a statement of the principles which should direct its regulation. But upon one matter I feel specially called upon to speak. Modern Europe and America, during the last hundred years, have entered upon a vast physiological experiment. This consists in the use of a new order of stimulants, as a part of the daily life of everybody except very young children.

Whether in the energetic and strongly vitalized populations of the Western States, children are allowed the use of tea and coffee, I know not; but in New England it is extremely common among the poorer classes to allow these beverages in full strength, as an article of daily use, to children of five years old and upwards. Let me therefore explain my reasons for speaking of the latter custom, and (eventually) for condemning it.

Both coffee and tea act pretty much alike upon the system. In reasonable quantities they are capable of stimulating digestion, of relieving constipation, of counteracting in a remarkable manner the effects of severe cold, of relieving neuralgic headaches, of driving away the noxious sleep of opium and other drugs, and stimulating the mental faculties in an agreeable manner.

They seem to place the system in a condition in which more nervous force can be expended in a given time, so that the person can speak, think, walk, write, more vigorously and for a longer period. But, while thus laying a larger stock of ammunition ready to our hand, they also increase the danger of spontaneous explosions. While increasing our capacity for perceiving and feeling, they also render us more excitable; the feelings, whether of joy or pain, or of sentimental emotion, come quicker, and are more overpowering. If they stimulate to muscular action, and render it more facile, they also give rise (as you all know) to occasional twitchings and tremblings of the muscles, quite annoying, and indicative of absolute excess in the use of the remedy.

In this respect, and in some others, there is a decided analogy between the action of these medicines, and that of *strychnia* taken in minute doses. Animals poisoned with theine or caffeine die in violent convulsions. But the parallel is by no means complete. Rather let us say that these beverages act as *mobilizers of force.* To use them is like putting a hair-trigger upon your rifle.

I have not attempted to draw a picture of the evils which they may give rise to, but will confine myself to the legitimate inference which follows the last statements. If they render the expenditure of nervous force easier, in what tremendous danger may they not place the young and excitable minds of American children, eager to learn and to excel? If, under their influence, the teacher is enabled to sit up all night, attending to an excess of school-work, will not the scholar be driven by the pleasurable impulse to labor, and the conscious ease of action given through coffee or tea, to a degree of overwork, which, less in amount, may be equally disproportioned to his powers? I speak both of boys and of girls; but the latter will inevitably suffer more than boys. In the "grave, measured, and exact language of truth and verity," as Trousseau, the greatest of French therapeutists, phrases it, "Those whose nervous systems are weak suffer, when using coffee even in moderate quantities, from heat, anxiety, palpitation of the heart, sleeplessness; if they use it in excess, from headache, vertigo, tremor of the limbs, pusillanimity, eruptions on the face; it may give rise to or increase the diseases of hysteria and hypochondria." What teacher of children does not recognize this picture?

I desire, therefore, to express my wish, that the time may soon come when coffee and tea shall be withheld entirely from children under sixteen or eighteen years of age — according to their development — except when it is expressly recommended by physicians. It is absolutely beyond a question, that most children will develop a better physique without them. As for adults, their habits are necessarily very different from those of children, and we need not here extend our

remarks to them. And, as beer and wine are scarcely used by children, I will also pass them by in silence.

There are three special faults in sanitary conditions which do harm to the nervous system of those in schoolrooms. These are, the means employed in lighting evening schools, the undue heat of schoolrooms, and the excessive dryness of their atmosphere, with other impurities.

Our nation is fond of burning a good deal of gas or mineral oil; and as a result our rooms are apt to get overheated. One gas-burner consumes as much oxygen in an hour as several persons, thus contaminating the air very rapidly, and heating the upper strata very much. In burning, gas gives out impurities, very perceptible to the smell, chiefly composed of sulphurous acid gas; besides which, the power of direct radiation of heat possessed by a cluster of burners is very great; so that the heads of persons in the room, enveloped in a cloud of hot deoxydized sulphurated vapor, are subjected to the effects of radiant heat, which are of an irritating nature, quite different from those of fixed heat. Of course headaches and utter exhaustion are the result.

It is the general custom, I am sure, in American schoolhouses, to keep the thermometer at about 70° F., provided the furnaces will deliver heat enough. Dr. Bowditch says: "In the sitting-room (of a family) the heat should not be above 72° F., nor below 68°; 70°, the medium, is the best." Now, with all possible respect for such high scientific authority, I beg to demur to this standard, widely accepted though I know it to be; for young persons and children, if properly fed and clothed and dried, it appears to me that 66° or 67° is quite enough. In the only perfectly ventilated schools I now remember, the temperature was kept at this point, and no complaint of cold was made by the scholars. The effects of excessive dry heat of climate upon persons of our race are usually manifested in the production of "simple general debility, a weakening of the bodily functions, marked by a diminution of the assimilative and digestive powers, and resulting in the loss of weight, and anæmia or poverty of the blood." And there is good reason to suppose that a difference of four or five degrees constitutes an important difference in climate. In an equable summer climate, a rise of the thermometer at noon to 76° may be felt, as an uncomfortable heat, while a fall to 68° will designate the day as "cool."

Neither heat, carbonic acid and oxide, sulphurous vapor, nor excessive dryness of the atmosphere, are felt as evils by the majority of our people; but all of them are dangerous in a special sense to the nervous system. Recent experiments made by Dr. Falk in Berlin show that air deprived of moisture makes the breathing more rapid and less deep; it quickens the pulse, and slightly lowers the temperature of the

body; and in a few instances it appears that a current of absolutely dry air, continued for several hours, produced epileptic attacks in Guinea-pigs exposed to it. Dryness of atmosphere certainly tends to make the human subject irritable and excitable. A few people are the victims of untold misery when exposed to carbonic oxide fumes. I do not know what can be done absolutely to prevent the evil, unless we give up anthracite furnaces altogether.

PART II.

CITATIONS OF OPINIONS FROM PHYSICIANS AND TEACHERS.

In collecting opinions, it seemed best to address physicians in different terms from those used towards educators: two forms of circular, therefore, were employed. Thirty-four of the replies are from physicians, and forty-seven from principals of public or private schools, and superintendents of public instruction in various places. The information obtained from the replies has been arrayed under the following heads: —

1. Regarding the fact of the existence of these evils.
2. Nature of the maladies.
3. Excessive amount of study, as a cause.
4. Faulty methods of teaching, as a cause.
5. Bad sanitary condition of school, as a cause.
6. Dissipation out of school, as a cause.
7. The health of girls.
8. Health of teachers.

1. — *Existence of the Evils spoken of.*

As regards this point, the question was put to physicians as follows: —

"Have you observed frequent injury (see below for definition) of a temporary or permanent sort, resulting from the excessive or unsuitable work exacted of children and young people in schools?"

This was answered affirmatively by twenty-two; negatively by four; "Yes but not from school-work proper," by four; and, "Very rare with us," by one.

The corresponding question, put to teachers, read as folllows: —

"Have you seen pupils suffering from headache, nose-bleed, debility, languor, or other complaints, which you think caused by school-life or school-work?"

Answers: —

No	8
Rarely	18
Often	3
Yes	12
Total	41

By these the special remark was made, to wit, "Boys rarely," two; "Girls no worse than boys," one; "Never bad for the vigorous and strong," one; "Yes, owing to bad food and lack of exercise," two; "Yes, owing to over-exertion in walking and gymnastics," two.

There is here a reasonable degree of agreement between medical opinion and that of professional educators (who for the sake of brevity shall be called "teachers") as to the existence of an evil; but medical men seem to be more impressed with its frequency than teachers.

2. — *Nature of the Maladies.*

That which may be called "Neurasthenia," characterized by the symptoms of debility and general depression, dyspepsia, sleeplessness, irritability, and headache, was mentioned by fourteen different physicians. Seven others gave a general assent to the entire list of disorders printed in the circular and, of these twenty-one, several made special mention of the following diseases; viz.,—

Menstrual anomalies	7
Irritable spine	5
Hysteria, chorea, neuralgia, each	4
Nose-bleed [1]	3

The following disorders, in addition to those named in the circular, were mentioned spontaneously, each by one or two physicians: Deformity of the chest or spine, injury to the urinary organs from long confinement in the school, phthisis (consumption), typhoid fever, self-abuse, insanity; of which only the last two properly come under the head of "nervous injuries."

The teachers' replies add nothing to this list.

3. — *Excessive Amount of Study, as a Cause.*

As regards the actual amount of study required, it is stated by the teachers that the number of hours spent in school, inclusive of recitations, recess, and gymnastics, is reasonable in most cases, — twenty-five or twenty-six hours a week, or even less, in twenty-three cases; about thirty hours in ten cases; thirty-six in one; forty-five or fifty in one; and sixty in one. The two last are certainly very excessive; and this is admitted by the correspondents, who are principals of large academies in New England. Study at home is not required in nine cases; for scholars over thirteen years of age, two or more hours a day are required in eight cases, and less than two hours in fifteen; for those between ten and thirteen, one or two hours in seven cases; for those under ten, an hour a day in two cases. The latter requisition is certainly improper. The amount of study was considered "suitable" by twenty-six teachers, while ten thought it too great in their own school or under their own observation.

4. — *Faulty Methods of Teaching, as a Cause.*

A good many teachers have remarks to make pointing in this direction.

The methods of teaching, and the qualifications of teachers, are spoken of in general terms as inferior by	6
Emulation is condemned by	8
Emulation is praised by	3
Emulation is said to be good for boys by	1

[1] A symptom pointing to congestion of the head, observed frequently among school children by Guillaume in Neufchatel, and Becker in Darmstadt. In these American school-children it would seem to be less frequent. Of the "teachers," only three referred to it at all, though specially asked; and those three denied that they had ever observed it.

The following recommendations are made, each by one or two teachers: —

To educate girls over fourteen as far as possible by themselves; to let young people over fifteen or sixteen study by themselves; to guard young children against the nervous excitement which arises from simple contact with a large number, even of the best scholars in a boarding-school; to let each young lady student have a separate sleeping-room; to inculcate religion as a motive for conduct; to give more frequent recesses; more play-ground; a room in the school for dancing in recess time; occasional reduction of work, or sending home for a while; to lengthen the terms, or require more time for the course of study; to pass the scholar more slowly through the different grades; to abolish public exhibitions; to abandon the "high-pressure" system; to give more prominence to the study of physiology; and finally "a total revolution!"

In fact, very few teachers have failed to see at least one point where the management of schools (I do not say of their own schools) is faulty; and physicians, in making their suggestions, have spoken particularly against those features of school life which tend to produce anxiety and worry, as competitions and public examinations.

5. — *Bad Sanitary Condition of Schools, as a Cause.*

Of these, ventilation is the only one mentioned by teachers, who speak of it as bad in various degrees in twenty cases, and as good in two.

6. — *Dissipation out of School, as a Cause.*

Question to teachers: "Do school-girls of fifteen and upwards spend much of their evenings in company or at public places of amusement? What kind of harm, and how much, do you think arises from this class of excitement as compared with school influences?"

This class of excitement was said to do more harm than study by twenty-one; it was said by nine to do no special harm, in many cases because prohibited by the school; and twelve state that that the habit is frequent in the place they write from.

8[1]. — *Health of Teachers.*

A question put in the circular addressed to teachers was answered as follows: —

Health of teachers generally good, or no worse than that of other classes	5
Might be good if they took fresh air, &c.	2
Very unhealthy vocation if they do not obey the laws of health	2
Health generally poor	9
Not much better than that of sewing-girls	1
They break unless we take great care of them	1
More liable to break down than pupils	5
One of the occupations that bring most strain upon the nervous system	1
Health sooner affected than in other occupations	1

[1] For 7 see pages 107 110.

In conclusion, the following brief summary of the most conspicuous results of the investigation is presented: —

1. School-work, if performed in an unsuitable atmosphere, is peculiarly productive of nervous fatigue, irritability, and exhaustion.

2. By "unsuitable" is chiefly meant "close" air; or air that is hot enough to flush the face, or cold enough to chill the feet, or that is "burnt" or infected with noxious fumes of sulphur or carbonic oxide.

3. Very few schools are quite free from these faults.

4. Anxiety and stress of mind, dependent mostly upon needless formalities in discipline, or unwise appeals to ambition, are capable of doing vast harm. It is hard to say how much is actually done; but a strong sentiment against such injudicious methods is observed to be springing up in the minds of teachers.

5. The amount of study required has not often been so great as would harm scholars whose health is otherwise well cared for.

6. Teachers who neglect exercise and the rules of health seem to be almost certain to become sickly, or to "break down."

7. Gymnastics are peculiarly needed by girls in large cities; but with the present fashion of dress gymnastics are impracticable for larger girls.

8. The health of girls at the period of the development of the menstrual function ought to be watched over with *unusual* care by persons possessed of tact, good judgment, and a personal knowledge of their characters.

9. One of the greatest sources of harm is found in circumstances lying outside of school-life. The social habits of many older children are equally inconsistent with good health and a good education.

EXTRACTS FROM CORRESPONDENCE.

I.

From a Boston Physician. — "I have not infrequently met cases of *consumption*, that could be *traced directly* to *over-stimulation* by examinations at the end of the school year. That is, the patient having kept up under inordinate strain during the term, made strong efforts to gain honors, and broke down immediately after, and when I saw them were far advanced in phthisis. I have no doubt that confined and bad positions during study-hours, and want of exercise, had their influence; but that *over*-study was apparently the death-blow seemed evident. I have seen so many of such cases, that I now urge parents who have transmitted frail constitutions to their children, or whose children from any cause are feeble, not to permit them to go but 'half-time,' to school, and to leave as soon as the health wavers in the least."

II.

"Over stimulation of the brain undoubtedly produces all the symptoms you mention, each child being affected with that form of complaint to which, from personal and hereditary peculiarities, he or she may be especially liable. What I have said particularly applies to public schools, where but little or no allowance can be made for idiosyncrasies.

"Brain-work is constantly in excess of the capacity of the constitution to endure, and at the same time comply with the demands made upon it by other processes, such as growth, development, &c."

The above is quoted as a strong, and perhaps exceptional opinion, held by an eminent specialist. In contrast to it see VI., from an eminent teacher in the same city: —

III.

"As far as my own direct observations are concerned, I could refer to many such evils as you speak of in the case of *teachers*, especially, or rather exclusively, among young women. . . . I know of one case where there was some, but not a strong tendency to mental disease, inherited in a young girl of fifteen, who evidently broke down, lost a vigorous, elastic condition of health, and became ill with melancholia of a severe type, attended with delusions and some stupor, simply from *cruel* overwork to stand high in her class and 'pass the examinations.'"

IV.

"Yes: more especially have I observed these injuries resulting in young girls. I would likewise say, that, in addition to one or more of the symptoms which you enumerate, deformity, contracted chest, and distorted spine, are frequent results of overwork of the brain, combined with bad position and long-continued application."

V.

From a Massachusetts Physician. — "Through timidity and want of foresight, previous to entering school, the little children suffer from inattention to the calls of nature. I think female teachers are very careless respecting their children in this matter, and personally I have known great suffering in consequence. This long-continued confinement of young children, I consider to be a very great evil. I can see no propriety in confining these children more than a very brief period at one time."

VI.

From a Teacher in Boston. — "During my fifty years in a schoolroom, I have seen no cases of ill-health, which, in my opinion, could be justly attributed to the school. True it is, that 'headaches,' &c., are many times more numerous, now than they were fifty years ago; but this does not result so much from the fact that boys are worse than then (although it is unquestionably true that the sources of corruption are far more numerous and wide-spread than formerly), as they do from the altered style of living in the better part of the community. Boys and girls are not born with the constitutions of their grandparents, and therefore they cannot endure so much."

VII.

A Grammar School. — "I have noticed irritability and languor among boys, caused, however, by self-abuse. The boys of the first class I always warn at

the beginning of the school-year against this by no means uncommon evil. In classes lower, I do not hesitate to talk to boys individually when necessary. It is strange to me that parents, especially fathers, do not warn their boys against this vice in their early years. Of the great number of boys I have talked with, I have found but two who had ever been warned; and, in every instance (?) the vice has been learned at the early age of nine or ten years; in one instance at the age of five years."

VIII.

A Grammar School. — "The ventilation of most of our school-buildings is simply abominable. And I do not believe it will ever be much better until School Boards, and not Common Councils, build these structures. The school-building in which I am is a 'modern' one, built three years ago. It is impossible to keep the air from becoming unendurable in a very short time, except by opening the windows."

IX.

From a New York Physician. — "One young gentleman (of most exemplary personal habits), who was studying hard for examination in a school of engineering where the curriculum was severe and the class-room mephitic, ran himself down into a condition of toxæmia and neurasthenia, which caused me some anxiety; and he informed me that several of his classmates had completely broken down under the same circumstances. In less degree, the consequences of excessive mental strain with insufficient exercise and ill-ventilated rooms are things of almost daily experience. The injury is probably due, not so much to the amount of mental work in ordinarily robust individuals, as to the conditions of inadequate arterialization under which the brain is forced to perform this work."

The Health of Girls.[1]

Under this heading there were no figures to present, and the points to be noticed are contained in the quotations which follow: —

A Girls' Private School. — "It seems to me that among such scholars as I meet, the greatest difficulty lies in an incomplete adaptation to a changing phase of society. I mean, that, for the past twenty years the social, and what I should like to call the æsthetic, claims upon young girls have been constantly increasing, until they are incompatible with an amount of school-work that twenty years since did not seem unreasonable, and did not produce any bad results, so far as I may judge from the experience of my own contemporaries. Now, if all these outside claims are just and right, the school-demands must be in some way modified, of course; but if they are, as I think they will prove, excessive, they will yield in time; and, meanwhile, there must be such adaptation as is possible, and that mainly by individual effort. Then, when society recognizes that it should not expect from school-girls the artistic, musical, and dramatic experience of the accomplished woman of society; when the mothers of our girls can moderate the excited cravings of the inexpe-

[1] See note page 104.

rienced seeker of pleasure; and when their physicians will inquire what has kept the healthy girls and women from nervous and other complaints, then I believe that the demands of society, and parents and physicians, will entirely coincide with those of the school-teachers, and with the best good of the scholars."

From a New England Normal School. — "The work done by students requires constant application of the mind five days each week, of nine or ten hours' study; or from *forty-five* to *fifty* hours. I consider this too much. The ill effects of this pressure are obviated in good measure by, 1. Ten minutes' intermission each hour, with marching movements to and from recitation-rooms. 2. By constant appeals to the perceptive faculties, and use of apparatus in objective methods of teaching. 3. By a regular daily exercise in light gymnastics in hall, with music, for at least thirty minutes at close of afternoon session, with marches and great variety of movements. 4. By short terms of ten weeks each, thirty weeks in school-year, with two weeks' intermission between terms. 5. By voluntary self-discipline, which in the main is all that is needed of this class [*Normal*] of pupils. My observation of these requirements leads me to say that for adult students, many of them teachers, five rather than seven hours are sufficient in the building. . . . *Generally, almost invariably, those who keep the exercise retain their health and mental power.* Others, who do not exercise as enjoined, are more subject to irregular conditions of body and depression of mind under the discipline described above This is equally true of either sex."

From an Academy for Girls, New Hampshire. — "I feel that much social relaxation unfits the mind for the closest application. It sometimes takes a week to get over the effect of an evening out, with no great excitement. It affords topics of conversation on persons and things that do not tend to elevation, and the breaking up of the regular routine of study hours loosens the hold these hours had on the mind. One evil should be avoided. It is, parents and patrons sending for pupils to go home on special occasions, such as dancing-parties at their own houses, and then sending them back to school, dragged out and exhausted, nervous and unfit for study. Three weeks will sometimes pass before the effect of such a visit passes away."

From a former Superintendent of an Insane Asylum. — "I must answer you from recollection. I have had one case of typho-mania, three of acute mania, six or seven of delusional disorder and great prostration, of female teachers from Boston and vicinity. I have seen a few cases of hysteria, and one of epilepsy (female teachers), *all* manifestly from over-work and anxiety of teaching. The epileptic was manifestly suffering from the bad air of the schoolroom, and has made a good recovery, i.e., no fits for four years.

From Calais, Maine. — "I have known, since 1869, while carefully watching fifteen hundred school-children in our schools, two girls injured by hard study. I have known more than five hundred injured by late hours and the excitements of social life, and more than fifty I can recall at this moment whom I know to have been seriously injured by late hours, party excitement, and premature introduction to social life."

A Seminary for Girls, New Hampshire. — "School influences upon growing girls of thirteen and upwards, so far as my observation has extended, have not

been unfavorable to their development as women, nor injurious to their general health. I believe they should be carefully treated, and relieved from *oppressive* burdens and work, especially when they desire it, *at stated periods*, for a short time. With this care, which cannot be so properly exercised in mixed as in separate schools, our young ladies may complete a full course of solid and ornamental study, and come out in full vigor of body and mind."

Principal of a Boston High School. — "Not unfrequently I see girls suffering from headache or languor, which seems to me caused by the wear of school-life; not merely by the work, but by the anxiety, the restraint, and confinement, of school. I have rarely seen boys of fair constitutions in our high school suffering from overwork, — not half a dozen cases in ten years. I have often noticed a great change in the appearance of girls after leaving school. Pale, thin faces grow fresh and plump in a few months. It seems to me desirable that girls should be educated as far as possible after fourteen by themselves, and without any stimulus further than that furnished by their desire to have their teachers' approval. In an experience of eight years in a private school for girls, I found no other stimulus necessary. I think any kind of emulation among girls is morally and physically hurtful. With boys the effect is certainly different, and is on the whole good."

A Private School for Girls in Boston. — "I have never made it an *arbitrary* rule to suspend or change the course of study, and with ordinary common-sense care with regard to clothing, and the surrounding pursuits and interests of life in young girlhood, there are but few who have not been able to be present and to do the usual amount of work. I think, as a general thing, I have observed keener nervous sensitiveness, and less concentration of thought perhaps, for the first year or so [of the period between fourteen and eighteen]; but after this, if the rest of the nature has been developed healthily and wisely, I have usually found increased interest and power of comprehension and acquisition. . . . I believe, that, even in exceptional cases, a moderate use of the intellectual faculties is of great benefit to mind and body."

A Physician in Boston. — "The male sex, at about the age of puberty and while fitting for it, need looking after quite as much as the female sex, so far as head-work is concerned. . . . Both sexes, under circumstances, have the lessons to get out of school [in Boston], and sometimes, I believe, at the cost of brains as well as body in after years."

Principal of a Boston High School. — "Female teachers have generally more than the average strength of constitution; but in our *mixed* schools there are few upon whom the worry of school teaching and discipline does not have a very marked effect."

Principal of a Boston Grammar School. — "The young lady teachers are many of them fresh from school, and the continuous work soon causes the health to fail. The practice recently inaugurated [in Boston] of exacting out-of-school work in perfecting themselves to teach special branches, has been a great tax upon their vitality."

A Boston Grammar School. — "A better chance to maintain good health than in any other calling open to the average class of women."

Superintendent of Schools, Springfield, Mass. — "School-teaching is very ex-

hausting. But most teachers are imprudent. If conscientious and ambitious, they over-work, and do not divert themselves sufficiently *out of school.* A worn-out teacher is used up for this world. But the circumstances under which they work have more to do in producing ill health than the work itself. I cannot think the occupation, as such, particularly injurious. It seems to me otherwise."

At the close of Dr. Lincoln's paper, the following paper was read by him in the absence of the author: —

GYMNASTICS FOR SCHOOLS.

By J. J. Putnam, M.D. Read at Detroit, May 12, 1875.

For the purposes of this brief paper, which can claim to have a suggestive value only, I have thought it best, in considering the subject before us, to attempt to give answers as definitely as possible to the following three questions, which I think cover the points mainly at stake in the matter: —

1. In what way, and to what extent, may gymnastic training be made useful in the education of school-children?

2. What means of securing it have been anywhere adopted, and with what results?

3. What means would be likely to insure the best results in our own schools?

The first question, as to the utility of gymnastic training for children in general, calls, perhaps, most of all for a definite answer; for it would, I think, become evident to any one looking at all closely into the matter, as it certainly has to me, that the greatest obstacle to the general introduction into schools, of any satisfactory system of physical training, would be in the want of definite appreciation, on the part of both the public at large and of controllers of school education, of the proper and possible value and aims of such a system. Those teachers are, I believe, in the minority, who regard the study of physical culture as something worthy of being pursued in schools with the same method and persistency that all are ready to accord to the training of the mind. Many of them feel a certain jealousy lest what they consider as the highest branches of education should suffer by the introduction of this new and apparently less important study; not remembering that the proper aim of school education should be to fit us in every possible way for the work of our after-lives. Let it but be shown, however, that physical training of such a kind as can be obtained to advantage only under the guidance of skilled instructors is an important part of this preparation, and its right to a place in the school, where alone such instruction can be had, must impress itself upon all by an irresistible

logic. This done, the question as to what particular system would best be adopted in special cases would soon be settled, and for this, as for other branches of school education, competent teachers would soon be found.

I will here forestall the main objection made to the introduction of any system of gymnastic exercises into schools, — viz., that such exercises could never be as useful as play in the open air, — by calling attention to two points: first, that however true this might be for children who were by nature strong, and inclined to follow outdoor sports, yet to those of whom a certain number are to be found in every school, who, if left to themselves, would take little or no exercise out of doors, — to these, at least, the influence of school gymnastics might make the difference of health instead of invalidism in after-life; second, that in certain important respects the benefits to be expected from outdoor play and from systematic physical training are essentially different. In the case of the latter, it is not so much the enforcement of a certain gross amount of general bodily exercise that would constitute its chief value, but rather the careful and scientific training of the various groups of muscles of the body, whether it be those concerned in carrying on the functions most necessary to life and health, as that of respiration, or those employed in walking, running, and standing erect.

It is manifest that for ends like these the aid of skilled teachers and well-considered methods of instruction would be absolutely requisite. I shall then endeavor to show that systematic school exercises may be of service in the education of children, first by promoting general health, second by bestowing certain special and highly important accomplishments.

In discussing the possible benefit of school gymnastics to the general health, I believe it to be best to refer but little to physiological explanations and theories, the validity of which in some cases is still an open question, in order not to awaken in the minds of scientific and thoughtful persons a spirit of distrust rather than a spirit of confidence.

The relation between indiscriminate physical exercise and the general health is certainly not one of direct proportion. With adults, at least, great muscular development is neither necessary nor directly conducive to good health, valuable as it may be indirectly or as an accomplishment. Athletes are by no means always among the healthiest persons; and, on the other hand, we can all recall within the circle of our own friends instances of the combination of perfect health with only moderate strength of limb. It was commonly stated, during the late war, that the young men of the city were able to stand the hardships of campaign life better than their more muscular brothers from the country. I do not mean to under-estimate the immense value of great strength,

considered as an accomplishment merely; and still less would I undervalue its tendency to lead its owner into the open air, where other and more essential elements of good health are to be found; nor would I deny that with growing children the importance to the health, of a large amount of outdoor exercise, may be comparatively greater than with adults. I desire only to place in stronger relief the statement that, even for children, systematic training, when properly directed, may be of value to the health, although it may not involve any large amount of physical exercise. One way in which it can be made pre-eminently useful is by helping to perfect the all-important process of respiration. That much needs to be done and can be done in this direction, was shown to some extent in the case of the children of the Boston schools, by Prof. Monroe, during the few years of his successful teaching. It seems, at first thought, as if the power of breathing properly were given us, in most cases at least, already perfected by Nature; or, at all events, as if its development were something beyond our own control. In fact, however, this is far from true. The singing-master has to work hard and long to enable his pupils to sustain a good tune through a few bars of music; orators with fine voices are rare among us; and yet, with the basis given by proper school-training, we could often perfect ourselves in these accomplishments by almost unconscious practice. The power to do these things is not, to be sure, necessary to good health: in fact, the conditions of good health (if by that be understood the power of doing, without injury or suffering, the work which is required of one) must vary with the habits of each individual; and for one leading a life of idleness they might dwindle to a minimum, so far as physical exercise is concerned; but the man or woman, in our average society, whom a short hill or a flight of stairs obliges to slacken their pace for want of breath, or whom an enforced run to the cars may seriously injure, cannot be said to possess that degree of development of the power of respiration that the conditions of health demand in their case. The nervous processes involved in breathing properly are, indeed, largely automatic in their character; but, in order that the complicated machinery of the automaton shall work satisfactorily, it must first be put in order; and to do this must be the work of the intelligence. Nature is not a lavish giver, or only to the few; and any thing like perfection in development, we must win for ourselves by careful study. Furthermore, it is beyond question, that such systematic education of the functions of respiration might, and often does, help to save one endowed with less than the average power of resistance, from lingering and fatal diseases of the lungs, — so much so that the practice of exercises in breathing, even in a crude form, is frequently prescribed by physicians in the treatment of such cases.

The best treatise upon the proper method of educating the breathing powers and the voice, that I have been able to find, is the little book by Prof. Monroe, whose name has already been mentioned. Most of the German and French works on gymnastics, with the exception of those treating of their use in disease, complete as they are in other respects, appear to be somewhat deficient in this. For the exercise recommended by Prof. Monroe, no apparatus or special costume is required. For proper walking and running exercises, a large empty room would be almost essential.

A proper system of physical culture in schools would also have reference to healthful positions in sitting or standing, more or less directly connected with the general health; of which, however, I will not now speak, further than to say that in connection with the question of school desks, which is being studied by another member of this department, that of the best method of developing the muscles of the back will have, sooner or later, to be considered.

If it is concluded that our children, like our ancestors, should sit erect and unsupported while they study, their muscles should certainly be so trained that they should be able to do so with the least possible fatigue, and the least possible temptation to sink into slouching postures.

Apart from the relation between physical training and the general health under ordinary circumstances, there are certain injurious influences peculiar to school life, the effect of which the school is surely bound to neutralize so far as possible.

Chief among these influences are, first, that of continued study through several hours, in the course of which intelligent application is likely to degenerate into listless mental drifting; not to speak of the ill effects, especially upon the circulation of the blood, which attend sitting in one position for so long a time. I find that this is already well recognized by many teachers, as well as the advantage of breaking the morning session by a few moments of gymnastic exercise. Second, that of the foul air, which in a schoolroom accumulates so rapidly, and of which, with our present insufficient means of ventilation, we are hardly able to get rid, except by a thorough opening of windows, during which process scholars would be liable to take cold if not fenced against it by active exercise. Third, improper positions in sitting, which give rise, with a frequency of which teachers are perhaps hardly aware, to deformities, which in after-life bring the scholars under the doctors' care. Thus I have it on good authority, that in a school of 731 pupils, at Neufchatel, 62 cases of deviation of the spinal column were observed among 350 boys, and 156 cases among 381 girls. These results are further stated

not to differ materially from those of examinations made in German schools. According to Adams, in 83 per cent of 782 pupils in which this deviation occurred, it was towards the right, probably in consequence of writing at unsuitable desks. According to Eulenburg, in 92 per cent of 300 cases the curvature was also to the right. It is true that these curvatures are not always associated with public health, since they sometimes occur in a slight degree to the strong and well; and it is true also, that they may arise under influences not peculiar to school life, such as the preponderating use of one or the other arm for any purpose. There can be but little doubt, however, that to the habit of writing at unsuitable desks belongs the largest share of blame.

It will be noticed, that, in the statistics which I have just given, the spinal curvatures were found to occur with much greater frequency among girls than among boys, — partly due, no doubt, to the fact that they play fewer active games, and are in general more restrained in their movements. In the brief report of a recent meeting at Berlin, of some of the highest authorities of Germany, called together to consider the entire subject of the school education of girls, I find a notice of an address by Herr Raaz, principal of a school in Berlin, in which he speaks of the common occurrence of these spinal curvatures in his school, and says that he has found the use of gymnastics to be powerful in preventing them.

I may anticipate somewhat by mentioning that at the end of their meeting it was unanimously voted to be very desirable that the study of gymnastics should be introduced as an obligatory subject into the programme of instruction in schools for girls.

I cannot leave the subject of health-giving relations of judicious physical exercise, without calling attention to the fact that without it lectures on hygiene and physiology must lose one-half of their value. The scholar must have been made to feel the benefit and sense of satisfaction resulting from the proper use of his muscles before lectures on the subject can be turned by his brain into working influences. Just as the artist's eye detects a slight blemish in a painting to which one less trained would be indifferent, or as a skilled musician shrinks at the sound of a false note, so one to whom the conditions of health have become practically familiar, whether it be good air to breathe, or the proper use of the muscles of the chest and back, is far more keenly sensitive to the failure of these conditions than he could possibly be if they had been known to him as intellectual conceptions merely.

The systems of exercises which would meet the ends hitherto referred to may be found in various books upon gymnastics, many of which are known to you all. Most of these systems do not require a special hall,

but only that there shall be room enough in the neighborhood of each desk — as a successful teacher writes — for the pupil to be able to take one step in each direction, and swing the arms freely in all directions. They may be used daily or even several times a day for a few months, for instance, immediately after a recitation; as, indeed, is already done in some of our schools.

I should be glad to speak of the value of physical exercise regarded as an accomplishment in training the scholar in certain special respects. The boy or girl who can climb and jump and run as they are taught to do in Swedish schools, and can do so better than his or her companions, has an advantage over them to be compared with that given by the power of speaking another tongue.

A large hall, with a few simple pieces of apparatus, is all that would be needed for these exercises; and the instruction need be given but once or twice a week. Such a hall is coming to be considered a *sine qua non* in the best common schools in Europe; so that Mr. Philbrick, late Superintendent of the Boston schools, on his return from a recent visit to Europe, writes that "in Vienna every modern schoolhouse has its gymnasium, and every school one or more gymnastic teachers, no special teachers in this branch being employed in the public schools in the city."

A third important work which its advocates say is done by gymnastic training in connection with school life consists in inculcating a sense of discipline and self-subordination in the minds of the scholars which serves to increase the efficiency of the school in its other departments.

On this point I shall not dwell, because, so far as I have found, no two opinions are entertained as to the reasonableness of the claim. Whatever else may be said about the desirability of having military drill in higher schools and colleges, no one, I think, acquainted with the subject, would hesitate to give it his support in this respect.

Leaving now the health and strength giving influence of physical culture, let us pass for a moment to not the least important of its relations; viz., that in which it is directly associated with a more purely mental, or, more strictly speaking, artistic cultivation, keeping to the expression and thereby to the more perfect conception of feelings and emotions that are not sufficiently precise to be satisfactorily translated into words, but that need another language analogous to that of music. It is universally conceded, that the use of the art of sculpture in some of the nations of ancient Greece was due, among other causes, to the strong hold upon the people of that physical culture which in other respects was productive also of such wonderful results. Even if not themselves practised orators and athletes, the artists of Greece lived surrounded by those who were such, and thus imbibed their spirit.

It is true that we strive to foster an artistic sense among our children by familiarizing them with the manifestations of grace and strength in the human form, in providing our schoolrooms with casts of ancient statues, &c.; but we forget that the artists who modelled them, and whose fine taste we hope to appreciate if not to acquire, must, to some extent at least, have derived their power to do so from observing men and women around them, with whom physical grace and the control of the body had been a matter of lifelong study; and partly, also, as the natural outgrowth of their own pursuit of physical culture. It is surely but natural, that the keen sense of appreciation, which only an expert can feel, of the exact meaning of this or that poise of the body, of the economy of power and the hidden strength implied in it, should help to awaken in the artistic mind the desire to embody these conceptions in durable forms.

To foster to any great extent the art of sculpture, may not lie in the province of the common school, any more than it is in its province to foster any other of the special accomplishments to any extent; but it certainly does belong to it, so far as possible, to prepare the soil in which such an accomplishment might grow. Furthermore we must remember, that these works of art are beautiful only because they represent the possibilities of human development, and that the thing itself should be of more importance in our estimation than its image.

Rev. Charles Kingsley in writing on this subject, after referring enthusiastically to the Grecian system of education, intellectual and physical, says, "Now, if the promoters of higher education for women will teach girls not only to understand the Greek tongue, but to copy somewhat of the Greek physical training; of that 'music and gymnastic' which helped to make the cleverest race of the Old World, the ablest race likewise, then they will earn the gratitude of the patriot and the physiologist, by doing their best to stay the downward tendencies of the physique, and therefore ultimately of the *morale*, in the coming generation of English women."

PART SECOND.

In referring to the history of the practical introduction of gymnastic training into schools, the countries of Europe, where this study has been making constant headway during the last half-century, naturally claim our first attention.

You will not be surprised to hear that during this time, as at the present day, the education of boys in this respect has received a larger share of thought and favor, from governments and from the public, than that of girls. It must, however, be borne in mind, that this is by no means because students of the subject have considered that girls

are not in need of physical training. On the contrary, it has been everywhere distinctly understood and expressed, that it is partly on account of the claims of the army, and partly because, from their organization and habits, they repay better a certain kind of physical training, that the boys have received superior advantages.

Speaking roughly, there are three well-recognized systems of gymnastics, all of them at least half a century old, that, pure or mixed, are in use over most of the Continent of Europe at the present day.

1. The system of Frederick Jahn, born in Germany in 1778, which was framed rather to create athletes and soldiers, than to answer the more generally useful ends of physical culture, especially so far as girls are concerned. Its general adoption in Prussia and Denmark has, in fact, fairly helped to keep the claims of girls far in the background.

2. That of the Swede, Ling, born in 1776, who developed more fully than any one the free exercises of the body and limbs, performed with little or no apparatus, such as are now everywhere more or less in use, striving also, with zeal that rather overreached itself, to place his system upon a physiological basis.

3. That of Spiers in South Germany, born in 1810, who, working with unbounded personal enthusiasm, studied particularly the exercises requiring the concerted action of a number of persons. These exercises found their full development in a sort of drill without arms, although freer movements, such as those of various dances, were also represented in them.

It was my original intention to present some details of these different systems before you; but as this paper has already occupied so much time, and as they would be scarcely intelligible except to special teachers of this branch, I have thought it best to omit them. I do not, indeed, feel myself able to discuss their comparative merits fairly; and I do not believe the time has arrived when it is important for us to do so.

If we look at the now prevailing condition of gymnastic instruction for girls in Europe, we find it to be as follows:—

In Holland gymnastics are not taught in the primary schools in the country towns, but are taught at all schools in the large cities, in large halls kept for the purpose. This instruction is given to both boys and girls. None but the eldest classes use exercises that require apparatus of any kind. Instructors in gymnastics, both male and female, have abundant opportunity to fit themselves at the general normal schools, which are supported wholly or in part by government; and the male teachers are obliged to have passed an examination, theoretical and practical, in that branch. Furthermore, in order to supplement the efforts of government, a society called "Society for the Public Welfare" has instituted schools for gymnastics at several of the large cities,— Groningen, Amsterdam, Rotterdam, &c.

In Denmark gymnastics have been an obligatory study since 1814, both at the normal and at the general schools; and at Copenhagen there is a special institute for the instruction of professors of gymnastics. This institute is under military charge, and its spirit is felt everywhere. The exercises have, however, a military turn.

In Sweden the celebrated system of Ling is an obligatory study in all the public schools, three to six hours a week being devoted to it, subject to the advice of a physician who is appointed to examine each scholar at the beginning of the school term. For the education of teachers there is a great central institute at Stockholm; and the graduates from the normal schools must moreover have passed a special examination in this branch. A former pupil of this Swedish system has established a gymnasium at Boston recently, and has taught also at the Girls' High School with excellent results, as far as could be judged in so short a time. A large part of the instruction is in the so-called "free exercises," including proper methods of sitting, standing, lying, walking, running, jumping, as well as exercises in concert, games, &c. The aim of these free exercises is to call into action in turn, the greater part of the voluntary muscles of the body; and with an intelligent, earnest teacher to direct them, there is no end to the modifications and combinations that can be made, calling for precision and strict attention and skill on the part of the pupils. As in all other exercises, the consciousness of progress made toward a good which still remains always in advance is always found to be attended with a sense of pleasure; and, the better the pupils are required to perform the exercises, the more they enjoy them.

In Prussia gymnastic culture has been obligatory in the primary schools, and indeed throughout Germany, in the schools for boys, is almost everywhere an obligatory study, although, except in the large cities, it is not systematically pursued. The official manual is a little book written by Angerstein, the Chief of the Municipal Normal School of Gymnastics of Berlin. The fact, that the importance is recognized of having the instruction in the branch systematic and thorough, is shown by the care which is taken to provide abundantly for the instruction of teachers.

At Berlin, for example, three different varieties of diploma of professor of gymnastics are conferred. These are: 1. The diploma of the Central Institute, or its equivalent, that of the Municipal Normal School, or of a special examining commission, which gives the right to instruct in the schools and seminaries of the higher grades throughout the State. 2. The diploma of those normal schools in which the study of gymnastics has been obligatory since 1854. This diploma constitutes a recommendation for its holder in seeking a place at any of the large schools of the city. 3. The ordinary instruction diploma, accompanied with a certificate that its holder has followed a certain course of instruction in gymnastics at one of the normal schools, and is fitted to teach it among his other duties at any small school in the city or country. The examination for the higher diplomas is written, practical, and oral, requiring a knowledge of the various methods of instruction, the literature and history of the subject, and the rules for the construction of the apparatus, &c.

In Prussia, in striking contrast to the excessive attention paid by the government to the gymnastic training of boys, little or nothing has been done for

the girls except through private means. Thus, out of a population of thirty-nine thousand girls at Berlin, seventeen hundred and forty-five only, or four and a half per cent from nine schools, received any degree of instruction in 1873. That this neglect has not been due to a want of appreciation of the importance of physical training for girls, is shown by the simple fact, that when in 1864 the Gymnastic Society of Berlin, supported by a recognized medical commission, petitioned the Minister of Education to initiate some changes in this respect, they were answered, that although fully appreciating the necessity of gymnastic training for girls and ready to encourage private efforts to obtain it, the government was unwilling to take the initiatory steps. Manifestly the needs of the army was a stronger influence with it than the desire to improve the general physical culture of the people.

It will be remembered, that in the early part of this paper I said that attention had been called to this point in Berlin, at a recent meeting of teachers of the higher girls' schools; and I may add that, after the discussion, an officer of the government stated that changes were already in prospect in the organization of the Great Central Institute for teachers at Berlin, favoring the education of female teachers in this branch. In this connection another point may be mentioned which directly interests us; viz., the habit, both in Prussia and Holland and other places, of encouraging the study of physical culture among actual teachers in the schools by giving them opportunity of attending closely, during three or four weeks in each year, to gymnastic courses at some good institution; the government supplying their places while absent, and even paying their expenses.

In other provinces of Germany, more is done in the way of instruction for girls, mainly in the shape of courses for which a small fee is paid; such instruction is given under the auspices of that great gymnastic confederation which extends all over Germany, counting more than a hundred and fifty thousand members, and serving to keep alive a love of physical culture throughout the land.

In England there is no obligatory instruction in this branch; but earnest appeals have been made for its introduction.

In France, Austria, and Switzerland, it is made obligatory by laws which, in the two latter countries at least, are thoroughly carried into execution. Of the capital of Austria we have already spoken in an earlier part of the paper.

In Switzerland, the importance of the subject is fully recognized; and the study of gymnastics is, nominally at least, obligatory. Here also military drill, the merits of which as compared with other kinds of physical training I shall not now discuss, is very much in vogue.

Of the history of physical training in this country, I need not speak at length. It is true that something has been done by general regulation in certain places, — for instance, in Boston, where at this moment

a rule exists that a few minutes of each half-session in the public schools should be devoted to physical exercise; but systematic attention to the subject pushed to the point of success has been due to private enterprise.

The number of these individual instances, however, and the degree of their success, have been great enough to warrant the conclusion that under proper auspices it would be both practicable and useful to introduce physical training as an obligatory study more generally into our schools, as may be seen from the remarks in the paper on school hygiene by Dr. F. Winsor, in the report of the Massachusetts State Board of Health, of January, 1874. The most notable cases of success that have come to my knowledge have occurred in the Boston schools during the period of Prof. Monroe's teaching, though he directed his attention particularly to the cultivation of the voice; at Vassar College; at the State Normal School at Philadelphia; and at Amherst; not to speak of the many schools where gymnastics have been used to a greater or less extent, nor of the public and private teaching of Dr. Dio Lewis, Dr. Mason, and others. The example set by Amherst College is peculiarly instructive. It is now a dozen years since a number of gentlemen, officers and friends of the college, solved in the affirmative the question as to whether or not a system of light gymnastics, to be practised daily, could be made at once interesting and beneficial to college students of an age when a revolt against irksome and tedious tasks is most in order. The system is established now on a firm basis; and the founders can point with pride to the testimony of graduates and undergraduates, and to a diminished sick-list, in proof of the success of their undertaking.

Yet their materials are of the simplest order, consisting of a piano and wooden dumb-bells; and their exercises are invented by themselves. They have, of course, had their slight ups and downs, from time to time, and have come to some interesting conclusions, one of which is, that the accompaniment of music is a *sine qua non* of the success of the enterprise.

PART THIRD.

In recommending the adoption of a practical system of gymnastics in our own schools, there remains but little more for me to say. All authorities agree, that teachers skilled in the work, and convinced of its importance, are necessary to the success of any system. We must, then, endeavor to obtain a large number of good teachers; and these would naturally be drawn from the normal schools; and with them lies, to some extent, the key to the situation. A sufficient number of teachers, for these schools at least, could be obtained either from abroad or at home, — for example, graduates of the schools and colleges already

mentioned, and others like them, — as has already been done to a certain extent. The final aim would be to fit all teachers for giving instruction in this branch; and a step in this direction might be taken, by making arrangements by which teachers could leave their schools for two or three weeks at a time, in order to attend gymnastic courses.

As to the system itself, it seems to me, that there should be exercises of some sort once or twice daily, for a few moments only, as is largely done already; and, two or three times a week, more extended instruction be given. If, at the same time, a fondness for physical culture could be made to spread from the teacher among the pupils, and from them again among the public, much good might be indirectly accomplished. The conclusions arrived at by the Belgian Commission, so often referred to, are very interesting in this connection. They review with some care the comparative merits of the system in which fixed apparatus is employed, and that in which none or very little such is used, and give their opinions in favor of the latter; at the same time specifying with minuteness exactly what pieces of movable or fixed apparatus they consider permissible.

They condemn the complicated systems in use in many places, which have for their aim, the acquiring of great strength, and the power to perform athletic feats, as objectionable and impracticable; and quote the opinions of gymnasts and experts as to the great value of the free exercises; and recommend lastly, that these exercises should be practised twice daily, and directed by the teachers at large, who should receive their instruction at normal schools, where the subject should be made obligatory. Whatever be the merits of any practical system, however, it must fail of accomplishing its object, if not nourished and supported by the conviction and enthusiasm of its teachers and the public.

Inasmuch as greater weight is attached to the testimony of practical workers in any field, than to that of theorizers only, I shall ask your attention for a moment to a few extracts of letters, from teachers of high rank, in various parts of the country, upon the subject with which we have been dealing. From a distant State one writes, —

"They (physical exercises) should not only have a place in the daily programme, but their observance should be as regular as that of any other exercise. The tendency of the system of graded schools is to limit the work done, to the course definitely laid down in the several grades, and to limit it still further within this course to those topics which are made the subject of examination in passing from one grade to another. In teaching these, the teacher expends largely his time and energy. Now, as physical exercise has not been placed on a level with the scholastic work of the school, made compulsory to all, and a condition to promotion, it has not generally received

regular and systematic attention. Our schools are, in the main, shaped by public sentiment, and do move efficiently much in advance of popular opinion, as represented by the school-officers of the country."

The principal of a "girls' normal school" in one of the large cities writes, —

"The most extraordinary results have been produced. Before the introduction of this subject (physical culture), the exceptions to the rule were those who did not have the headache: now the exceptions are those who do have have it. Upon examination, we have found that systematic instruction in this direction necessarily breaks up the injurious habit of tight lacing, from the fact that the pupils must wear loose dresses upon those days set apart for practice; and the consequence is, healthy, vigorous, rosy-cheeked girls."

Miss ——, who has managed this department of the school just mentioned, "with great success for several years," writes, "There is, I am sorry to say, a deplorable lack of interest here, as elsewhere, in the subject of physical education, . . . while our future men and women, forced to sit by the hour with cramped muscles and contracted chests, in schoolrooms where the air is foul with many breaths, will graduate quite probably with active minds, but almost certainly with enervated, undeveloped bodies. . . . There is but one public school in this neighborhood at the present time, where there is a department of physical education conducted upon these conditions (persistent systematic training). . . . To establish such a department, demands but little change in the present school system, since almost any schoolroom may be transformed almost instantaneously into a gymnasium, no apparatus being required for the lower grades, and only a few light implements carried in the hands for the more advanced pupils, and each scholar needing only space enough upon the floor for a step in each direction, and room to straighten the arms in front and at the sides. Of the pupils, the requirement is slight, being merely that the dress shall be short enough to leave the feet unencumbered, loose enough to admit of a full inhalation without feeling the clothes at the waist or across the chest, and large enough to permit the free play of every muscle in the body. For this, no special costume would be required, except in the highest grades. Music is a great addition to the exercise, but not a necessity. But the great difficulty, and in fact the only serious one, is the dearth of regularly trained teachers of gymnastics, who are not only fully prepared for the work, but who are enthusiastic in the cause, and able to impart their information to others. This arises from the low standard of physical culture admitted by public opinion. Let it once be required, that those who teach this branch shall of necessity be regularly trained, and there will be a supply of good teachers in a marvellously short time."

The principal of the school last referred to touches, as it seems to me, upon a point of greatest practical importance when he says that the introduction of light gymnastics into his school has done something toward initiating a real reform in the dress of the girls. Enough is said in these days of the evil results that follow upon tight lacing and

the wearing of dresses which do not admit of the free use of the arms; and yet the practical work of conversion goes on but slowly: if, however, the rules of the school obliged the girls to wear a more reasonable dress two or three times a week when the exercises were performed, it might fairly be expected that the real merits would be recognized and remembered. The arguments of comfort are stronger than those of persuasion.

In conclusion I wish to make mention of a few of the best books upon gymnastic training, in order that it may be seen how much attention the subject has attracted in different parts of the world, and the direction in which its supporters are working. The first of which I shall speak is a closely printed book of about four hundred pages, called "Statistik und Schul-Turners in Deutschland" (Statistics of Gymnastic Instruction in the Schools of Germany), published by the National Turnerschaft in 1874, and giving accurate statistics of the extent to which gymnastics is actually practised in every school throughout Germany and Austria. It contains, besides, an apparently complete statement of the German literature on the subject, comprising more than a hundred books, together with a variety of other facts compiled with the precision in which German statistical works are known to excel.

Another notable work is the "Theoretisches Handbuch für Turner," by Angerstein, director of the Städtische Turnhalle in Berlin. It is made up mainly by lectures given by him in his course for the instruction of teachers. It treats of the elements of human anatomy and physiology, the history of the use of gymnastics among the ancients, and its introduction into Europe, as well as the practical details of a manual. The subject of gymnastics for girls is thoroughly discussed in a book of four hundred pages by Herr Kloss, who holds in Dresden a similar position to that of Angerstein in Berlin. Another excellent and similar work upon the same subject was published in 1872 by Schettler, a director in Plauen; and in both of them a good deal of space is given to the description of games to be played out of doors, many of them accompanied with songs of which the music is given. The æsthetic side of the subject is presented in a book, among others, upon the Gymnastic Culture of the Greeks, by Otto Yäger.

Of the books in the French language, I will mention only the "Gymnastique Populaire Raisonné," by Junot and Sanglet, published in Neufchâtel in 1873; of those in English, two books by Archibald MacLaren of the Oxford gymnasium, meant rather for colleges than schools; several by Matthias Roth of London; and in this country the well-known books by Dr. Dio Lewis, who writes with vigor of the importance of gymnastic instruction, and gives some exercises invented

by himself; and the manual by Prof. Monroe of Boston, already mentioned.

The manual of exercises in use at Amherst, invented largely by its author, Prof. E. H. Barlow of 1866, the captain of their gymnastic class, has also been published. A more detailed account of these works will not now be necessary. Enough has been said to show the spirit in which the subject has been approached by experts; and those who wish to give it more careful study will find the materials ready to their hands.

At the session for discussing the Effects of School Life upon the Eyes of Children, a paper was read by Dr. Webster of New York, embodying the statistical results of the investigations now in progress under the direction of Dr. C. R. Agnew. The work is still incomplete, and will doubtless require one year more, at the least, before it can be published as a whole. The following is from an abstract of the paper, made by Dr. Agnew: —

EXAMINATIONS OF THE EYES OF AMERICAN SCHOOL CHILDREN.

European observers have demonstrated the fact, that during school-life there are developed in the eyes of scholars, diseases which increase in frequency and gravity from the primary to the university grades. It is not necessary to repeat here a review of the work of Cohn, Erismann, and others, as that has already been done elsewhere. Our object now is, to begin a statement of the result of preliminary examinations made in New York, Brooklyn and Cincinnati, on the same subject. In these cities, the eyes of scholars, 2,884 in number (the eyes, and not the scholars, are enumerated, as there is frequently a difference between the two eyes of one person), of both sexes, ranging in age from six to twenty-six years, were examined, and the conditions as to the refraction and diseases noted and tabulated. In the same connection, the state of the schoolrooms as to light, desks, heating, and ventilation was observed; as also the length and distribution of study-hours, and other facts affecting health.

In Cincinnati, O., 1,264 eyes of scholars were examined by Dr. Ayers and Dr. D. Booth Williams. About one-third of these belonged to the district schools, one-third to the intermediate, and the remaining third to the normal and high schools. In the district schools, 13.3 per cent were near-sighted (11.3 of the boys, and 15.3 of the girls). In the intermediate schools, 13.8 per cent were near-sighted (9.5 per cent of the boys, and 18.1 per cent of the girls). In the normal and high schools, 22.8 per cent were near-sighted (22.2 per cent of the boys, and 23.2 per cent of the girls).

Dr. J. S. Prout and Dr. Arthur Mathewson examined 600 eyes of students at the Polytechnic, Brooklyn, N.Y., all boys, 284 belonging to the academic, and 316 to the collegiate department. In the academic department, 9.2 per cent were near-sighted, and in the collegiate department 21.8 per

cent were near-sighted. Dr. William Cheatham examined 1,020 eyes of students in the New York College, New York, all boys; 670 belonging to the introductory class, 210 to the Freshmen, 110 to the Sophomores, and 30 to the Juniors. In the introductory class, which is made up entirely of students who have passed the public schools, 21.9 per cent were near-sighted; of the eyes of Freshmen, 26.2 per cent were near-sighted; of the Sophomores, 22.7 per cent were near-sighted; of the Juniors examined, 50 per cent were near-sighted. The number of Juniors examined was too small, however, to be of any scientific value.

The tables show that *staphyloma posticum*, one of the gravest organic changes in progressive near-sightedness, increased from 0.5 per cent in the district schools, to 7.6 per cent in the intermediate, and 10.4 per cent in the normal and high schools.

The following paper was presented, but not read, at the same session: —

Rules for the Care of the Eyes.

By Dr. D. F. Lincoln, Secretary of the Department of Health,

When writing, reading, drawing, sewing, &c., always take care that

(*a.*) The room is comfortably cool, and the feet warm;

(*b.*) There is nothing tight about the neck;

(*c.*) There is plenty of light, without dazzling the eyes;

(*d.*) The sun does not shine directly on the object we are at work upon;

(*e.*) The light does not come from in front: it is best when it comes over the left shoulder;

(*f.*) The head is not very much bent over the work;

(*g.*) The page is nearly perpendicular to the line of sight; that is, that the eye is nearly opposite the middle of the page, for an object held slanting is not seen so clearly;

(*h.*) That the page, or other object, is not less than fifteen inches from the eye.

Nearsightedness is apt to increase rapidly when a person wears, in reading, the glasses intended to enable him to see distant objects.

In any case, when the eyes have any defect, avoid fine needlework, drawing of fine maps, and all such work, except for very short tasks, not exceeding half an hour each, and in the morning.

Never study or write before breakfast by candle-light.

Do not lie down when reading.

If your eyes are aching from firelight, from looking at the snow, from overwork, or other causes, a pair of colored glasses may be advised, to be used for a while. Light blue or grayish blue is the best shade; but these glasses are likely to be abused, and usually are not to be worn, except under medical advice. Almost all those persons who continue to wear colored glasses, having, perhaps, first received advice to wear them from medical men, would be better without them. Travelling vendors of spectacles are not to be trusted: their wares are apt to be recommended as ignorantly and indiscriminately as in the times of the "Vicar of Wakefield."

If you have to hold the pages of "Harper's Magazine" nearer than fifteen inches in order to read it easily, it is probable that you are quite nearsighted. If you have to hold it two or three feet away before you see easily, you are probably farsighted. In either case, it is very desirable to consult a physician before getting a pair of glasses, for a *misfit* may permanently injure your eyes.

Never play tricks with the eyes, as squinting or rolling them.

The eyes are often troublesome when the stomach is out of order.

Avoid reading or sewing by twilight, or when debilitated by recent illness, especially fever.[1]

Every seamstress ought to have a cutting-out table to place her work on such a plane with reference to the line of vision as to make it possible to exercise a close scrutiny without bending the head or the figure much forward.

Usually, except for aged persons or chronic invalids, the winter temperature in workrooms ought not to exceed 60° or 65°. To sit with impunity in a room at a lower temperature, some added clothing will be necessary. The feet of a student or seamstress should be kept comfortably warm while tasks are being done. Slippers are bad. In winter the temperature of the lower part of the room is apt to be 10 or 15° lower than that of the upper.

It is indispensable, in all forms of labor requiring the exercise of vision or minute objects, that the worker should rise from his task now and then, take a few deep inspirations with closed mouth, stretch the frame out into the most erect posture, throw the arms backward and forward, and, if possible, step to a window or into the open air, if only for a moment. Two desks or tables in a room are valuable for a student, — one to stand at, the other to sit at.

The next subject of discussion was the establishment of the office of Medical Inspector of Public Schools. It was opened by reading the brief of a State law, prepared by Joseph Willard, Esq., of Boston, modelled essentially upon the Massachusetts law establishing the State Board of Health. It is here printed, not as a measure which receives in every point the sanction of the Department of Health, but as containing many valuable features.

Project of a Law Establishing the Office of Medical Inspector of Schools.

First, He shall be appointed by the head of the Department of Public Instruction.

Second, Term of office three years.

Third, Must be a physician.

Fourth, Is expected to devote his entire time to the duties of this office.

Fifth, Salary three thousand dollars, payable quarterly, plus necessary expenses for clerical labor and travel.

Sixth, He shall take cognizance of the interests of health among the teachers and children of the public schools.

Seventh, He shall make sanitary investigations in respect to schoolhouses

[1] Or in the case of women, by childbirth.

and grounds, and to all circumstances connected with the management and instruction of schools, which may appear to influence the health of scholars or teachers.

Eighth, He shall make himself acquainted with the means employed in other States for preserving the health of the inmates of schools.

Ninth, He shall seek to trace the origin and mode of extension of epidemic or other diseases among inmates of schools, and to point out measures for the arrest or prevention of such diseases.

Tenth, He shall from time to time inform the Department of Public Instruction of the results of the aforesaid investigations, and shall suggest to the said department such modifications of the system of instruction and management existing in the schools of this State, as, in his opinion, would conduce to the improvement of the health of teachers and scholars.

Eleventh, He shall further, in the month of January of every year, present to the Department of Public Instruction a written report of his doings and investigations in the line of his duty as aforsesaid for the year ending with the 31st of December next preceding.

Twelfth, He shall gather, and from time to time shall present to the department, such information, in respect to the interests of the public schools as he may deem proper for diffusion among the people.

The concluding session of the Department, held May 13, was occupied by accounts of the Philadelphia examinations, and of those instituted by Prof. Bowditch; these have already been spoken of on p. 86. A paper containing a synopsis of the leading principles in school architecture was also read, and occasioned much comment. It is not reproduced here. The session adjourned at noon, *sine die*, after passing a vote of thanks to the chairman, Rev. Mr. Brigham.

THE FINANCIAL POLICY OF ENGLAND AND THE UNITED STATES.

By G. Bradford.

Read at Detroit, May 12, 1875.

Hardly fifteen years have elapsed since the finances of the United States first became a matter of serious importance; at least, if we include under that term only the common items of debt, revenue, and expenditure. If, indeed, we add the kindred subjects of currency and banking, want of importance is certainly not the phrase to employ. That is a most disastrous history, and one which well justifies the remark of Hon. Richard Cobden, that the United States have suffered more from bad currency than from slavery itself. Deeply, however, as that branch of the science enters into the life of the nation, and intimately as it is bound up, not only with the prosperity but the morals of the people, yet there is so little agreement as to the principles upon which it is based, that I prefer to adhere to the simpler elements for purposes of illustration.

When we read, that, up to the year 1860, the total budget of revenue and expenditure of the United States, though it had doubled in ten years, did not exceed $84,000,000, while for recent years it has amounted to $320,000,000; that before the outbreak of the civil war, there had never been any income raised by the United States from excise or internal taxes; that the debt of the United States before the civil war never exceeded $127,000,000 at its highest point in 1816, and, having been entirely paid off in 1836, reached in 1860 only $65,000,000 against $3,000,000,000 four years later; that the revenue from fluctuating tariffs, manipulated for private and local purposes, was, at one time sufficient, not only to pay off the debt at a high premium, but to leave a surplus for distribution among the States, while at another it fell off to such an extent as to cause a serious deficit in the annual balance sheet, — it is evident that the administration of the treasury did not call for or present any great exhibition of financial skill.

Before dwelling upon the peculiar conditions of our financial administration which have made themselves apparent in the change of circumstances, though they can be shown to have been always in existence, I

wish to review a course of events in many respects analogous to what followed the close of our war, but presenting in themselves incomparably greater difficulties. The Kingdom of Great Britain emerged in 1815 from a war of twenty years' duration, with a debt of four thousand five hundred millions, a sum, it need not be said, vastly greater than would be conveyed by the same figures to-day, even on a gold basis. During that war the funded debt, bearing three per cent interest, had fallen nearly to fifty per cent of its par value, a point in which we certainly have not the advantage, since, notwithstanding Mr. Chase's cherished delusion that he was selling no bonds below par, our six per cents did fall below forty; the real difference being that the profit of the subsequent rise accrued to foreigners instead of the domestic fundholder.

It must be kept in mind, too, that there were not at that time several wealthy nations standing with a superabundance of capital, ready to rush into any investment not regarded as absolutely desperate. Not only could not Great Britain borrow, she was forced to lend, — to subsidize nearly all Europe during that tremendous struggle. That she was compelled, therefore, to resort to a forced paper currency, is much less surprising than that it should not have fallen at the worst period to more than twenty-five per cent discount, or, to adopt the more popular expression, that gold should not have advanced beyond 133, while, with all the advantages of modern finance, the price of gold in our paper touched 290. There is, probably, no single proposition which has involved so much cost to this country as that the government debt must not be sold below par; a policy which, in view of the quotations of our bonds in foreign markets, reminds one of the ostrich, which is said to suppose itself perfectly concealed by burying its head in the sand.

Within six years from the close of the war, specie payments were resumed by Great Britain, and have ever since been maintained; against which we find, that, after a lapse of ten years, this country has not made a single well-considered step to that desirable end, and that to all appearance we are as far from it as at the close of the war. The experience of Great Britain in this respect ought to be of the greatest practical value to us; but, while the facts form a bone of contention even among experts, as far as the instruction derived from it by Congress or the government is concerned, one would never suspect that such history existed.

I pass over the years preceding the passage of the first reform-bill, because it was only subsequent to that date that was commenced the series of reforms, not merely in finance, but in other directions, political, social, and religious, which, whatever we may think of the actual

condition of the people, or of the national character, have fairly earned for the working machinery of the English Government the first place either in ancient or modern times. The financial situation at the close of the third decade of the century, was unsatisfactory in the extreme. The budget of 1838 showed a deficit equal to $7,000,000; that of 1839 a deficit of $2,000,000; that of 1840 of $7,000,000; that of 1841 of $9,000,000; while that of 1842 was estimated to fall short by $12,000,000, involving an increase of debt of $37,000,000,000 within five years. The most alarming symptom was, that the decline of revenue took place in the great items of customs and excise; an attempt to increase the receipts by raising the taxes in these branches having actually resulted in a decrease. Business in all branches was depressed, pauperism increasing, and the people despondent. It was at this moment that Sir Robert Peel came forward with a proposal for the application of the income tax, an instrument which had lain in disuse since the close of the war.

We are accustomed to regard England as a country governed by the rich and for the benefit of the rich. Yet this tax — a tax which falls almost wholly upon the rich classes — was voted by the representatives of those classes — and after the emergency was past, and the revenue began to show a surplus, was renewed from time to time for twenty years, resulting in financial progress which lends to this dryest of subjects almost the interest of romance. Do not suppose that I claim for the British aristocracy or moneyed classes any especial degree of philanthropy or disinterestedness. I believe they are quite as selfish and oppressive as their brethren in other parts of the world. What I would insist upon is, that wonderful adjustment of political forces which can make the interests of the nation superior to that of any class, and which, while proceeding without violence and with the most tender respect for vested interests, can yet concentrate public opinion upon a definite point to be attained, and then, applying pressure as with a political jackscrew, gently but irresistibly overcome any degree of inertia. And here let me deprecate the shudder which passes over every man who is fortunate enough to be exposed to it, at the bare mention of the income tax. Fortunately our finances show no present need of it, and it is to be hoped they will not for a long time to come. But we all remember how eagerly it was abolished among the earliest of the taxes. A great deal of complaint was made of the inequalities and injustice of the assessment. But with the exception of the publication of the returns, a gross outrage, which is not at all an essential element of the tax, which is itself a flagrant proof of the loosest administration and entire want of official responsibility, and which has never happened in Great Britain, where the most inviolable secrecy is preserved, — with

this exception, there is not one of these objections which has not been urged upon the Chancellor of the Exchequer at each renewal of the tax, while that official, steadily resisting amendments as impracticable, has as often been able to carry the tax in the face of moneyed opposition. It is not the income tax for which I claim your approval; but the power which is strong enough to administer finance from a national and not from a class, local, or individual point of view.

Another still more striking instance of this peculiarity, is to be found in the repeal of the corn-laws. I doubt if, in the history of the world, any struggle between classes of such an internecine character has been settled without bloodshed or violence. It has many features of analogy with the conflict between our farmers and the railroads; and those who look with anxiety on this issue will do well to give a close study to the solution of a problem far more difficult. I go so far as to believe, though I confess with little expectation of sympathy, that, if we had possessed a similar political engine for mediation between classes and sections, it would have been possible to secure the abolition of slavery without a civil war. On the one side stood a landed aristocracy, as prejudiced and stubborn as any in Europe, believing, whether rightly or wrongly, that their welfare depended on the maintenance of the duty on corn. On the other was rising the vast population of the manufacturing towns, determined that, while the rest of the world stood ready with food to exchange for their products, they would no longer submit to artificial restrictions. Again, Sir Robert Peel and his band of followers stood forth and fought a battle more glorious than any of the blood-stained fields of which Europe is so proud. "Ah!" it will be said, "but we have no Sir Robert Peel." I hope, if you will take the trouble to follow the comparison I am about to present, you will be open to the idea that it is the system rather than the want of men from which we suffer. I believe we have had, in public life, men as much superior to Sir Robert Peel in all the qualities of a statesman, as he was to the average Congressman or Member of Parliament. But our organized destruction of individuality made their lives a failure. Uniform mediocrity is a natural result of the application of Procrustes' bed.

To return to the income tax. The writer from whom I quote says, "Sir Robert Peel had spent the autumn and winter in maturing his plan of finance, and on the 11th of March, 1842, laid it before the House of Commons in a speech of very great ability. The debate on the tax-bill lasted for eight nights. Every stage was strenuously contested; and as many as sixteen divisions were had, not reckoning motions of adjournment." Almost every word of these sentences is full of instruction. Instead of awaiting the actual meeting of Parliament,

without even the slightest inception of a financial plan, thus giving to preparation the whole time which should be devoted to discussion and the elucidation of principles, and postponing the most important measure till the very last days of a session, we have the highest trained official in the Kingdom, spending the whole year in evolving a detailed and comprehensive plan, ready for placing before Parliament on its coming together; instead of a bald written report, fettered at once by the impossibility of blaming Congress for past shortcomings, and by inability to enforce any recommendations for the future, we have an oral exposition, embracing the subject in all its parts, reviewing the mistakes and successes and the lessons of the past, balancing the considerations and probabilities of the present and future, and paving the way to debate. And then follows the debate itself. No doubt there is a vast deal of talk in the British Parliament, of which despotisms, whether of individuals or majorities, are apt to be impatient; and from it results a great deal of delay in important matters. But this is in politics a far lesser evil than precipitation. Violent and sudden changes are always injurious, even in the case of undoubted improvement. How much more so with measures which at best are empirical and of uncertain advantage! The slowness to admit material changes of laws in England is often commented upon, as well as the fact that a step once taken is seldom retraced. I believe the cause of this lies less in the national character than in the full and free discussion, both in Parliament and the newspapers, so that a measure once passed is pretty sure to be, not perhaps wise in itself, but in accordance with thoroughly matured public opinion. I ask any one to turn to a file of the London "Times," and, selecting some subject more especially within his own knowledge and interest, to read carefully a debate extending perhaps over seven columns. He will find, I am sure, in the first place, that his knowledge of the subject is greatly enlarged. He will feel with what eager interest it must be read by the classes whose interests are affected. He will get a distinct idea of the character and views of each individual taking part in the debate; and, if he follows the debates as a practice, he will find those characters becoming as distinct and life-like as those of his personal friends and intimates. He will find himself, after testing men upon questions which he does understand, coming to trust implicitly the same men upon questions which he does not understand; and he will appreciate the process by which Pitt and Canning and Gladstone and Disraeli have wrestled their way to eminence, and which may, to all appearance, be relied on to furnish a line of worthy successors.

How many men in this country know any thing of the nature, the arguments for or against, or the probable effects, of the civil rights and

force bills? What individual character or talent is identified with either of them? Hatched in committee rooms, under the stimulus of party discipline, we find them borne on by a party majority determined to carry them by brute force and the gag. The minority have no means of resistance, except in frivolous motions which consume time by a tedious and reiterated counting of the house; the contest being reduced to one of purely physical endurance. Do not, I beg you, jump to the hasty conclusion that it is merely a question of difference in men. We will return to that in a moment.

In proposing the imposition of an income tax, the principal object of Sir Robert Peel was to restore the public credit, and provide a surplus instead of a deficit; but another, and hardly less important one was to furnish the means of making experiments in financial reform, without the risk of disaster from disappointed expectation. He proposed to reduce the duties upon timber and coffee, and 750 articles in the tariff, repealing the export duty upon British manufactures. In the comparative ease with which taxation has been borne in this country, we can probably have but little idea of the relief which was thus afforded to a depressed and burdened industry. The first year of the new finance resulted in grievous disappointment, which, if the Minister had been subject to party attack without any power of speaking in his own defence, might have resulted in his destruction. But he was able to explain to Parliament that the failure was mainly in technical points; and to secure a continuance of the system, which, in a few years, yielded such brilliant results, and carried the country through the crisis of 1847 with a minimum of disturbance of the revenue, and none at all of the public credit. In 1847 the Peel Ministry resigned; and we need only remark how perfectly, under a change of administration, the financial sequence is preserved, Sir Charles Wood basing his calculations upon the principles and results of his predecessor. The budget of 1848–9 was presented to a new Parliament, and Lord John Russell renewed the income tax after a severe discussion. To quote once more, the "voice of the new Parliament had confirmed in the most decided manner the financial policy of its predecessor, and had not only renewed the most important of its measures, but had renewed it precisely in the form in which it had at first been adopted."

To those who care to pursue the subject further, I will recommend the perusal of a volume of the Financial Statements of Mr. Gladstone; statements which are said to have held not only the House of Commons, but large attendant audiences, for hours at a time, in rapt and silent attention; and in which are set forth in the most general scope, and the most minute details, in their workings, at once moral, social, and political, the character of past and proposed financial measures. I

can glance at only one item: in 1842, customs duties were collected upon 1,200 articles; in 1845, upon 1,163; in 1853, upon 456; in 1850, upon 418; while in 1860 the whole revenue from this department was derived from 48 articles. If it were possible for a man to achieve for himself the position of Mr. Gladstone in making such a statement, do you think we should find any lack of talent competing for it?

I remark, once, more, that the point to which I wish to direct attention in English finance is not the wisdom of any particular measure, or set of measures. For instance, I do not discuss the question of free trade, which is such a passion with every Englishman. It has doubtless added to the wealth of Great Britain; but it may be that the consequent dependence upon foreign countries may involve vast suffering to the population in the event of a general war. In like manner, the Bank act of 1844, whether with reason or not, has called forth the bitterest opponents. Again, I make no comment upon the policy which has always preferred the reduction of taxation to the reduction of debt; or comparison of this with our policy or practice of reducing debt to the neglect or worse of the currency. I would point out that the finances are treated as a whole; that the measures of the present are framed with reference at once to the past and the future; and that when any object to be attained is once agreed upon, it is kept steadily in view by successive Ministries, and even generations; that, being placed under the control of one mind, they receive such previous preparation and coherent form that they can be subjected to close and definite debate; that this combined power and responsibility tend of themselves to produce an unfailing succession of financiers of the highest ability which the kingdom affords; and finally, that the degree of publicity, and the force of personal character, are such, that when a fierce struggle with any class interest becomes necessary, the whole weight of an advanced and enlightened public opinion can be brought to bear.

It is not an agreeable task to turn to the other side of the picture. I am aware that the popular idea of patriotism is adverse to the study of excellencies in foreign systems, and of defects in our own; that it is a presumption of weakness to dwell more upon ills we have than upon others which we know not of. But outside of those minds which are content to immerse themselves in the enjoyments and occupations of the moment, with the maxim, "After us the deluge!" there are serious and growing misgivings as to this great experiment of government. They usually concur in ascribing the threatened danger to universal suffrage. If such were my conclusion, I should certainly not be reading this paper. If universal suffrage is ever terminated in this

country, it will be by bloody civil wars and the rise of military power. If one must go over Niagara, it is better to do so with bowed heads and folded arms, than screaming and struggling in impotent resistance. There are defects of organization amply sufficient to account for our failures, and much less strongly fortified against attack. I hold that there can be no higher duty than to separate the necessary from the accidental elements of the situation.

There are two features especially prominent in the financial, not to say the general, history of the United States: First, the superior power of local and class interests as compared with the national, the certainty that in any conflict the latter will be worsted; and, second, the absence of any coherent policy or sequence. Every thing is empirical. The measure of to-day has no necessary reference to that of yesterday or to-morrow; the business of the country being exposed to sudden and incalculable changes, and the worst of all evils, instability. Since the establishment of the government, the tariff has been changed ten times, giving an average, if we omit the Hamilton tariff of the first twenty-five years, of less than five years. These changes were not made upon any settled principles, or with any sense of the national detriment, resulting from sudden fluctuations. They all consist of sharp transitions from high to low duties, according as the party of free trade or protection is for the moment in the ascendent. The history of these tariffs, moreover, shows a steady and almost regular progression in the indulgence of private interests, special articles being favored in the most outrageous manner. The reports which were published by the President of this Association, when special Commissioner of the Internal Revenue, set forth the ludicrous incongruity of the recent tariffs. And the fate with which those reports met shows further what chance the national has of contending successfully with special interests. Before the country is called upon to decide between protection and free trade, it needs to insist upon the removal of these absurdities. In fact, so great, upon the least attempt to alter the tariff, is the pressure of private interests, that when more revenue is needed the only available method is to add a certain per cent "horizontally."

Not less striking is the history of currency and the banks. The first United States bank, from 1791 to 1811, seems to have had an almost unexceptional record. There were at first but three State banks, too weak to intrigue against it. It was well managed, and when forced to wind up in 1811, it did so speedily and honestly, having furnished a uniform currency for the country. It fell before the attacks of nearly a hundred local banks, who thought it for their advantage to have the custody of the government funds and to furnish the circula-

tion. How much the national interest was therein consulted appeared in 1814, when there was a general bank failure, the notes of those institutions circulating at a discount of from ten to twenty-five per cent; simple words, which convey no idea of the distress implied in them.

In regard to the establishment of the second United States Bank it is said, "It was thought that a strong central and national institution, on which the State banks, now increased in number to two hundred and forty-six, might lean for support, would enable them to resume specie payments and to go on thereafter on better principles." In other words, private interests were graciously pleased to allow a national institution to help them out of difficulties. Provided it did this it was of little consequence what else it did; and its management was subjected to very little efficient supervision. This end being accomplished, private interests again went to work upon it; and the removal of the deposits to the pet banks and the specie circular undermined the fabric, which, with no one to look after it, fell to the ground with a crash. For twenty years the country got along as it could with the issues of private banks for their own profit, until they came to a number of fifteen hundred. With the outbreak of the war came the legal-tender act, and the joy and excitement of the country at having once more a national currency were so great as to make light of the financial difficulties of the war. But alas! for the old story. Two thousand banks swarmed down to take their share of the profit, and embarrass the return to specie payments. The greenbacks cost the government nothing but the expense of preparation, while the national bank-notes involve a cost of twelve to fifteen millions of dollars. If there is one respect in which the latter are superior to the legal-tender notes, I have yet to see it. But while there is a languid discussion on the subject of contraction, it always applies to greenbacks, the tendency in the case of bank-notes being always towards increase.

The complete ignorance or neglect of financial history is shown in the policy which insisted upon floating bonds at par by excessive issues of paper, instead of keeping the currency at par, and letting the bonds find their market value.

For an explanation of these persistent and constantly recurring forces, let us attend in advance the assembling of the next Congress. The first event, financially, is the report of the Secretary of the Treasury. It would be a waste of time and labor for that officer to spend the summer in elaborating a plan of finance based at once upon sound theoretical principles and upon the proved conclusions of history. He knows too well that there is an element of far more weight in the account, — the interests and fancies which govern Congress. Any

effective review of the past would involve a censure of that body, which might be thought impertinent. Any plan for the future must reckon with the lobby. Except, therefore, a few suggestions of the most general character, the report is little more than a statement of account. Next comes the appointment of the standing committees. It is perfectly open to any one of three hundred members of Congress to propose a measure on any topic, financial or other, whence it results that the number of measures presented every session amounts to three or four thousand. As there is nothing whatever to give to any one of these a precedence over any other; and as obviously they cannot all be discussed, the selection must be left to the committees, from which follows the extraordinary consequence, that nothing can receive the attention of Congress or the government unless the assent of a committee is previously obtained. These committees are appointed by the Speaker, making that officer by far the most powerful individual in the government, though he has no direct responsibility for the results of his appointments. Of course the majorities in committee are on the same side with the majority of the House. There are sixteen committees of the House upon subjects more or less connected with finance, on ways and means, on appropriations, banking and currency, commerce, post-office, manufactures, agriculture, public expenditures, and pensions, besides seven others on the expenditures of the different departments. Of the Senate, there are distinct committees on finance, appropriations, commerce, manufactures, and the post-office, which I select as being more especially connected with financial affairs.

It might be expected that these committees would be ready with some matured conclusions to be presented to Congress when it assembles. Not at all. Nothing whatever is done until Congress meets, when the whole crude mass of propositions, including the Secretary's report, exactly on a par with the others, is apportioned to the committees. During the hatching process which ensues, Congress, as a body, has nothing to do, except the proverbial employment which is always provided for idle hands! In the last weeks of a session which has been mainly passed in the functions of a public laundry, the committee reports begin to pour in. Upon what motives and by what influences these are framed, the public have not, and can never have, any information, except what may be inferred from some general considerations. In the first place every member of these committees represents a locality and not the nation. He will be much more alive to local, private, and party interests than to those of the nation. Secondly, the responsibility for the ultimate effect of the measures recommended weighs very lightly on each individual, while the pressure of the interests demanding attention is tremendous. Thirdly, the committees are largely

made up of new men, not apt to be familiar with history or sound principles of finance, and not likely to fight very hard for them if they were. The state of things at the close of a session resembles nothing more than a football match of about equal numbers. There is a rush, a crowd, a display of arms and legs, a rending of garments, till the football emerges, though in what direction or in what part of the field no human foresight can divine. Measures come forth half prepared, often containing provisions which were not supposed to be there, and wanting others of the first necessity. Of effective debate there is not a trace. The majority are obliged to use their strength to get any thing done. It is a brute conflict of numbers. What can an executive department do with such legislation as this, or how can there be any of the personal responsibility which is the first requisite for developing talent and skill.

Time permits but a glance at the machinery upon which our finances depend. But any one who gives the least attention to public affairs can fill out the picture for himself. And what is true of the finances is equally so of any other department of the government. There are defects of organization, which, while the problem of government was simple, were less obvious, but which threaten its very existence when subjected to the strain of more complex political life. They have no inherent or necessary connection with universal suffrage. I hold it as not proven that the will of the majority of the people of the United States is in favor of abuses of any kind. The manifest failure, up to this point, is in the means of giving expression to that will. It may be regarded as in some sense fortunate, that one of the most delicate problems of human society is forced upon us at a comparatively early stage of our national existence. We might drift on for a long time with a bad tariff or a clumsy management of the national debt. But the evil of inconvertible currency, which robs the poor, and, while enriching the few, poisons the cup by making their prosperity as unstable as water; which is actually turning back the tide of emigration from Europe that has added so much to our wealth; which for a year and a half has kept commerce and industry paralyzed with fear; and which has turned the stream of reviving enterprise towards the speculation of the stock markets, — this evil cannot much longer be neglected. But whether it endures for one year or twenty, I am sure that there is but one way of dealing with it. All the expedients which financial students have suggested break upon Congress like idle waves upon the sea-shore. If any progress is ever to be made, the financial officer of the government must meet Congress on its first assembling with a matured plan having reference to the finances in all the branches. That plan, and no other, must be fully and

thoroughly discussed; publicly, that the country may judge of motives; individually, that the talents and character of each man may be publicly developed. If the plan fails to command approval, another individual must be invited to submit another plan, to be thoroughly sifted by like public debate. Sooner or later a man will be found whose propositions can stand fire at once from the point of view of honesty, capacity, and technical skill; and when he is found, public opinion will take care that he is not brow-beaten or overridden by any force of lobby or private interests.

In the way of such a process there stands but one obstacle, doubtless of immense force, but for encountering which there is need, first, that it should be clearly seen. It is the tenacity with which Congress, like every other legislative body, clings to power. It cannot be too strongly urged that the conflict is not between the Republican and Democratic parties, neither of which is prepared or aims to deal with the real difficulty of the situation. It is a question between the people and Congress. "A responsible finance minister," "National management of the finances," "The people *vs.* the lobby," "Government for the whole, and not for a part," "Financial policy, and not financial chaos," "Definite and responsible power in place of secret and irresponsible." As a child turns round a mirror so as to attract the attention of distant passers by the reflection of the sun, I would strive to place this idea in some light by which it may penetrate the popular brain. In hundreds, I might almost say thousands, of individual minds, I have found it to meet with a quick and ready response. I know well how hard it is in the busy and teeming life of a great people to find acceptance for a new idea. But I know also, when once it takes root, and is believed to be both practical and advantageous, how it grows and spreads with irresistible force. In this power I place my trust for the means of encountering, not merely the financial, but many another difficulty, in the path of human liberty and popular government.

LIMITATIONS OF JUDICIAL POWER.

By Emory Washburn, Professor of Law at Harvard University.

Read at Detroit, May 14, 1875.

Our members cannot have forgotten that in 1869 the Supreme Court of the United States, five judges against three, decided that the "legal tender act" of 1862 was not valid, so far as related to contracts then existing. Judge Grier having resigned his office in December of that year, and the office of an additional judge having been created, the vacancies thereby created were filled in February and March, 1870. During that year the case of Parker *v.* Davis was heard, and a decision of five judges against four was rendered. Judge Strong, who had succeeded Judge Grier of the former majority, together with Judge Bradley, newly appointed, and the former minority of the court, constituted the present majority. The opinion was given by Strong, J., wherein he says, "It will be seen that we hold the acts of Congress constitutional as applied to contracts made either before or after their passage. In so holding, we overrule so much of what was decided in Hepburn *v.* Griswold, as ruled the acts unwarranted by the constitution, so far as they apply to contracts made before their enactment."

This naturally leads one to inquire whether there is no way of determining, *definitively*, what powers the constitution delegates to and confers upon the separate branches of the government into which it divides its functions? Is it true that a question so vital in its importance, as whether Congress possesses the power to enact a given law or not, when once decided judicially upon a full hearing of competent parties, is settled and determined only so long as the opinions of the *major* part of the supreme court, for the time being, are in unison upon this point? Is it true that Congress may have such a power to-day, and its exercise may be binding upon the country, but by a change in the persons or numbers constituting this court, such decision may be reversed and overruled, and the act become, *ab initio*, void, on the ground that Congress never had such a power? If it be so, it ought to be understood better than it now is, that no false estimate should be put upon that doctrine of the law, "STARE DECISIS." And the extent to which this mutability of constitutional construction reaches should also be understood; since a decision like that of McCulloch *v.* Maryland, made in 1819, is just as open to being overruled as

that of Hepburn *v.* Griswold, which was decided in 1869. If these were not *conclusively* settled, it is difficult to conceive of any means of *establishing* any thing which can, by possibility, be brought within the cognizance of the judiciary, or of preventing its being forever an open and fluctuating question.

The objection involved in the queries above suggested may be met by what may be assumed to be a necessary incident of the jurisdiction of every court of the last resort, a power to overrule and reverse its own decisions, when for any cause it shall think proper. It is not proposed to contest this power in matters of pure law, or those addressed to the discretion of the court. And if limiting and defining, by construction and interpretation of the constitution, the powers of Congress upon any given subject, come within the category of pure law or judicial discretion, it might seem a waste of words to set up what is reasonable against what has become established by usage.

The question lies deeper than the propriety of exercising a conceded power. It reaches the power itself, by the still further question, Whether construing the constitution, in order to determine the powers which it confers upon the legislative branch of the government, for example, is one of those judicial decisions, which, after deciding it in the mode in which judicial questions are raised and settled, is open to being overruled and reversed at any future time, however remote? To settle this question, it is necessary to go to the constitution itself, and look at it, as all deeds, contracts, and legal instruments are examined, in the light of the circumstances under which it was framed and adopted. In doing this, little aid can be derived from precedent or analogy. A new system of government was to be framed and applied under most peculiar and abnormal circumstances. Whatever powers it was to exercise, were to be delegated, and not only so, but *limited* to certain specific subjects; and the powers not thereby delegated to the United States were expressly reserved to be otherwise exercised. These powers were to be exercised by three separate and distinct classes of functionaries, representing three departments of government, — the legislative, the executive, and the judicial. It needed no interpreter, however, to define what functions were embraced, generally, under these generic terms. But when it came to draw the lines which separated the one from the other, it became of the last importance to make them as distinct and definite as possible, in order to give consistency to the government, to preserve harmony in its parts, and prevent interference and collision of one branch with another. The whole history of the convention which framed the constitution shows the care and solicitude of its members in attaining this definiteness and certainty. But they knew, as everybody knows, that language is often

more or less ambiguous and equivocal in the meaning of its terms. In carrying out the mighty experiment upon which they were entering, they knew that they could not anticipate and provide for every thing which might require to be interpreted in the language which they did make use of, when it should come to be applied practically. It was, therefore, necessary in the matter of powers it created to fix and provide some mode or means, in the nature of umpirage, for giving this construction, that, when made, it should become, as it were, a part of the constitution; otherwise, instead of the instrument being made more determinate and intelligible thereby, it would grow more and more uncertain in its meaning by every new attempt to define it. The whole field of administration was open before them, and they wished to divide it between three proprietaries by lines as well as they could; and to supply any defect in tracing these lines, they delegated to the judiciary the duty of drawing them out, and setting the stakes which were to ascertain the precise boundaries between these proprietaries. Carrying out this analogy, then, when any one of these lines has been made out and its monuments established, this power of arbitrament has been exhausted; the agent, as to that specific part of his duty, is *functus officio.*

But it is said this construing the constitution is a judicial power, and has all the incidents of such a function, and among others that of the court overruling and reversing its former judgments. The constitution does, indeed, declare in what courts "the judicial power" of the United States shall be vested, and to what cases this power shall extend. But it nowhere says that its judgments shall be after one model or another, nor how far they shall be conclusive. That seems to be left to the nature of the subject-matter which is to be treated by them. The constitution was providing for a new class of judicial powers, till then unknown to the common law or the English constitution, and in respect to which there were no precedents or analogies. It was clothing the judiciary with a power of declaring an act of the legislature void by exercising this very function of interpreting the language in which the power of Congress is attempted to be limited and defined. That was something outside of the legitimate and accustomed functions of courts and judges, as known and understood by the common law. In creating a court of last resort, the framers of the constitution must have had two purposes in view: one of them having relation to the duties and functions of similar courts in determining questions involving the rights of person and property; the other clothing the same court with a new, and until now unheard-of function, that of construing and defining the extent of the powers and jurisdiction of the co-ordinate branches into which the government

had been divided. There was no necessary analogy between the extent and limits of the functions thus delegated to this court, nor ground for inference that because the judgments of courts of common law are subject to change and reversal by the changing circumstances under which questions are presented to them, this newly created function was to be exercised in the same variable and undeterminate manner. There is no reason why the two should be exercised in the same way, because they are delegated to the same body. And we believe that this distinction is sustained by "The Federalist" in No. 80, when treating of "cases arising under the constitution," as distinguished from those "arising under the laws of the United States." And Mr. Rawle, when commenting upon the powers conferred by the constitution, may be understood as referring to the same thing, when he says, "A function also appertains to the judiciary, in the exclusive right to expound the constitution and thereby test the validity of all acts of the legislature." This is what the court did in Hepburn *v.* Griswold. They expounded the constitution as to the powers granted to Congress in respect to declaring United States notes a legal tender, and decided that the act of making them such, so far as existing contracts were concerned, was invalid, because the power to do this was not one of those which had been delegated to that body. The parties interested in the question, and through them the public, had done what the constitution had directed them to do, to put the matter at rest once and for all, and remove any doubt in respect to it: they had gone to the judiciary; and, after a judicial hearing and examination, this constitutional umpire had answered their inquiry, and had drawn the line, and fixed the bound beyond which Congress might not go. And the public were not a little surprised to be told, that, after all this, it was not to the judiciary as a fixed and permanent functionary that the constitution intended to refer this most vital question for final adjudication, but to leave it to the varying members of it, counted by majorities, as they should, from time to time, read and understand its language. While some have considered a judgment bearing upon a question of the power of any of the co-ordinate branches of the government, as in all respects a judicial act, because performed by the judiciary, others have regarded it more in the nature of a ministerial function, in the performance of which judicial forms and rules were to be observed, but, when executed, it becomes a finality like other ministerial acts. One reason why it is believed that this latter has been the more generally received opinion among intelligent and thinking men is, that although there have been two schools of construction of the constitution from the start, which have entered into the party politics of the country, and given rise to fierce and bitter disputes, questions involving these distinct views of the

powers conferred by the constitution upon Congress have been, from time to time, settled by the courts, and acquiesced in by the adverse parties, apparently because they considered the question, when once decided, as no longer open for agitation. When an act of legislation has been declared unconstitutional, no state, we believe, has ever seriously tried to give it vitality by re-enacting it, or gone to the supreme court a second time when vacancies have been supplied in its constituent members, to try the experiment of asking to have their former judgment overruled.

One obvious ground of distinction between the ruling or judgment of the judiciary upon the delegation of a power by something as fixed and definite as the constitution was intended to be, and a question at common law, is found in the very nature of the questions to be decided. The common law, in its origin and mode of application, lacks the definiteness and stability at which the constitution aims. It is constantly growing and constantly being modified by new combinations and circumstances. And if a new rule under it seemingly conflicts, at times, with one already declared, it generally is not difficult to reconcile them by a comparison of the circumstances under which these rulings may have been made. Whereas, present circumstances cannot vary what was written and intended by the framers of the constitution. That, though intended for all time, is in its language and construction, a thing of the past. It is to be interpreted in the light of its own history, and can borrow little aid from the shifting politics of a later day. If the people for whom it was made desire a change in its language, or differ from their umpire, the court, in the meaning of this language, they have in the constitution itself, the means of correcting these defects or mistakes, without endangering its stability by opening a new field for doubt and discussion with every change in the members constituting the court.

What of stability was there to be gained in principle over the shifting legislation of Congress according to changing majorities, by appealing to a court whose decisions were to shift with every change in the majority of its members?

If we have made ourselves understood, the question which has been incidentally raised in these remarks relates to the future rather than the past. We make no issue as to what has been done, and have referred to existing cases chiefly to show the length to which the doctrine has actually been carried. So far as the legal-tender act goes to affect contracts existing at the time of its passage, the decision of the court, either way, can make no great difference in the matter of dollars and cents. But if that and like questions are still open, as often and as long as men and parties can be found to agitate them, it augurs

any thing but stability to our decisons, and even to the government itself. One of the most solemn and responsible duties which every patriot owes to his country, is to preserve our supreme court from the baleful spirit of politics. We expect to see our President chosen because his opinions coincide with those of a party. We expect to see questions of party politics influencing the actions and opinions of majorities in Congress. But the constitution meant to have one branch of the government which was to move in a higher sphere and a purer atmosphere than that which Presidents and Congress are obliged to breathe. It did not, therefore, mean to give either of these branches a chance to influence the branch which was to construe their powers, by acting upon the number or selection of those who were to constitute it, and doing this in reference to the construction which they were expected to give when these powers should be called in question. We need not assume that vacancies have been filled, or new offices created with any view of thereby changing a judgment already enunciated by the court. It is enough that it may be done, and that Congress and the President, representing a party in the country, may by possibility, manipulate the supreme court by indirect means like these, to give new constructions to constitutional limitations, and widen or contract the powers which that instrument has delegated to the federal government.

If ever the time shall come when the people of this country see, or think they see, judges of the highest court selected to undo what has already been done, in order to bring the construction of the constitution into harmony with the then political views of Congress and the executive, they will need something more than the moral power on which they have hitherto so confidently rested, to sustain the dignity of their high office, or give force to the judgments they may declare.

We have thus far assumed, that in matters of common law, as well as in construing statutes, the supreme court has the power of overruling its former decisions as incident to its very constitution as a court. But regarded as a court of appeal in the last resort, we have the analogy of the English House of Lords, in denying to it this power of overruling and reversing its own former judgments. When made, they are the final acts of such court. Its ultimate power of revision and decision has been exercised and exhausted. And it would be difficult to show, by any course of reasoning, why this power should be any broader or less limited in the supreme court as a court of the last resort in the United States, than in the House of Lords, — the court of the last resort in England. In the case of Attorney-General *v.* Dean, etc., of Windsor,[1] the Lord Chancellor says, "By the constitution of

[1] 8 H. L. Cases, 391.

this United Kingdom, the House of Lords is the court of appeals, in the last resort; and its decisions are authoritive and conclusive declarations of the existing state of the law, and are binding upon itself when sitting judicially, as much as upon all inferior tribunals." In Tommy *v.* White,[1] both Lord Brougham and the Lord Chancellor hold that a judgment pronounced by the House of Lords, "could not be set aside, and the case could not be reheard, without an act of Parliament passed for that purpose." The same doctrine is laid down in Wilson *v.* Wilson,[2] and Everard *v.* Watson,[3] and is adopted as law by Broom.[4]

The very idea of having a court of last resort with a power to correct the errors and mistakes of inferior tribunals, goes far to sustain the doctrine, that the ruling of such court ought to be a final and conclusive declaration of what the law is, as much as a declaratory statute would be when passed with all due formality by the legislature; and can only be changed, like other laws, by legislative action. If the question is an open one here, it is time it was put at rest.

[1] 3 H. L. Cases, 69. [2] 5 H. L. Cases, 59. [3] 1 E. & B., 804. [4] Com. Law, 4th ed., 48.

LIFE INSURANCE FOR THE POOR.

By Elizur Wright.

Read at Detroit, May 13, 1875.

The question I propose to consider is, How life insurance can be best adapted to the wants of those families whose sustenance and education depend not upon accumulated wealth, but on the wealth-accumulating faculties of some of their members.

In our country such families abound in all classes of society, from those of the lowest to those of the highest culture. But my question will regard specially the lower stratum; for in the upper, where the mind is the chief wealth-producing faculty, the poverty which results from the premature death of the wealth-producing member of a family usually stops short of pauperism. There are social safeguards, besides life insurance, to prevent the fall. It is the early death of the manual laborer which more often consigns to pauperism a family which would have continued to rise in the scale of happiness, if his life had been prolonged. It is to the destiny of such a family that life insurance is of the highest relative importance; and it is in this quarter that its benefits thus far have been least available.

In order to adapt life insurance to the classes that most need it, we must clearly understand what it really is, — its faults as well as its merits, its various modes and limitations, and their relation to the peculiar necessities and contingencies of its subjects.

We know how, with infinitesimal exception, human population wholly renews itself within a century; how the life of a generation is substantially about a third of a century; and, out of a very large mass of people of all ages, from zero to one hundred years of age, we know, within very narrow limits, how many of each age will die within a year. But what comes so near to certainty, as to the wasting away of the mass, falls largely, if not wholly, within the dominion of what we call chance, as to the individual. If the census-taker finds one hundred thousand persons, taking all as they come, of the age of 40, it is nearly certain that the deaths among them in one year will be more than 900, and less than 1,100. If he counts in the same way one hundred thousand persons of the age of 54, the deaths from among them in one year will be almost exactly twice as many, and if the age is 64, four times as many. Yet, in regard to either group, no one can

say with any approach to certainty, that the healthiest individual will not be included in the list of deaths. What we know of this matter, so far as we know it, is called the law of mortality. Of course, it is slightly hypothetical, — fiction founded upon many facts, but proved by experience near enough to the unknown truth for all practical purposes. The bearing of this law of the mass on the fate of the individual is called, in mathematical language, the Doctrine of Chances. It supplies to mankind, in regard to a great many subjects, a sort of substitute for fore-knowledge, or prophetic power, more or less useful. Life insurance is particularly one of the games regulated by it, and is more or less justifiable, according to the necessities of the persons concerned. To the families that are saved from suffering by it, it is gambling made useful. The person insured enjoys while he lives, the comfort of knowing, that, if he dies prematurely, his policy will make good to his dependent heirs, in some measure, their pecuniary loss by his death. It is the estate he will leave them; and its value to him day by day, and night by night, is all the greater, if he has no other estate to leave. And especially is this so if he prizes the spirit of independence which Saxon Smollett calls, —

"Lord of the lion heart and eagle eye."

But when the beneficiaries of a policy would suffer no pecuniary loss by the death of the insured, having nothing to expect from his life and labor, it is gambling which lacks justification perhaps as much as any other, if not more. It is worthy of remark here, that while common law requires that an "insurable interest," that is, a pecuniary interest on the part of the beneficiary, shall exist at the inception of a policy, it does not require that the insurance shall cease when the insurable interest ceases. In point of fact, it often does not; and common law fails of its aim for reasons that will presently appear. So, also, the most competent writers on the subject have failed to persuade the practical managers not to issue a policy to extend beyond the age at which they would not be allowed to commence one.

Rich men cannot need life insurance so much as poor ones. The only justification of such insurance by men rich enough to leave their families well provided for without it, is that their premiums strengthen the company, and thus benefit those who have a real necessity for insurance. This is on the assumption that their lives are better than the average, and consequently that their investment, not providing for a necessity, is a bad one for themselves; but they probably resort to insurance, because they have some misgiving that their lives are not as good as the average, so that the money they expend in premiums will prove a profitable investment. Assuming that the heavier policies

in existing companies belong to rich men, they do seem to make a good investment; for in most companies the average death-claim is almost uniformly larger than the average policy. If the rich insurers do make a profitable investment, by the same token they do not, as an average fact, strengthen the company. They simply draw money from the more necessitous policy-holders, to enlarge the estates of those who have no necessity, and thus engage in gambling which is not justified by utility. Whether the heavier policies belong to people insuring without necessity or not, there is certainly need of more care to exclude bad risks on them, before life insurance will be as well adapted to the poor as it should be.

Where a real necessity for insurance exists, it may be regarded as a good investment, no matter how much better than the average the life may be, and notwithstanding the fact that the premiums paid may exceed the claim or endowment. If such a result could be foreseen, the investment would be bad; but it cannot be. And safety from an evil which may lurk in the future is as real as any other commodity, and may be cheap at twice its tabular cost, even if it turns out at last that there was to be no evil there. Besides, life insurance, by the very sense of safety it imparts, may prove a life-preserving medicine.

Legitimately conducted, though regulated by the laws of gaming, life insurance is really a standing together, shoulder to shoulder, of persons more or less exposed to a common danger. Though some may pay more money than others, in proportion to the money they receive, every one receives more value than he pays in money.

It is quite obvious that laborers of sound health and morals, such as are proper subjects of insurance, as a general rule, will accumulate a competent provision for their families and their own old age, if they live to become old. Hence the necessity for insurance will naturally decrease as life is prolonged. Any arrangement, therefore, which makes the amount of insurance large at first and gradually diminishing will better fit this class of people than one where the amount continues the same.

In all games of chance, a party who understands the laws which govern the game has the advantage over one who does not. Hence, to adapt life insurance to the poor, it should be reduced to the utmost simplicity, so as to be within the comprehension of the humblest capacity. Methods or practices unexplainable to their comprehension should be abstained from if possible, and the expenses should be gauged to suit their circumstances. It is not to be expected that the poor, or, for that matter, the rich, will ever generally understand the intricacies of algebra that usually clothe the doctrine of chances; but the poorest laborer can read the Arabic numerals, and cipher as far as

the rule of three, and hence is capable of understanding, from first to last, any life-insurance policy that is fit for him to take, if the figures are honestly set before him.

To show just how the present methods of life insurance need to be modified to adapt it to the circumstances of the poor, I shall have to revert to the first principles of the subject with a particularity which I trust will be pardoned, even if it proves a little tedious.

In any table of mortality the ultimate age is 100, or a trifle more or less. By comparing the number in the table set down as living to attain each year of age, with the number who will die from them before attaining the next year of age, we have a series of ratios expressing the chance of a person's dying within a year after any age which he may have attained. This chance of dying within a year increases more or less rapidly, from any given age to the ultimate one, when, according to the table, it becomes a certainty. Hence, if a company insures a man for his whole life, for a given sum, payable whenever he may die, it will naturally bind him to pay a series of annual premiums corresponding with this series of chances. Each premium will simply cover the risk of his dying in the year entered upon, not to speak of any margin for expense of conducting the business, or for extraordinary mortality. Consequently these premiums, which we will call *natural*, because each exactly covers the risk for the whole face of the policy for one year, and *net*, because margin is left out of consideration, will begin small and increase gradually and almost imperceptibly at first, but with ever accelerating rapidity as years roll on, till, at the ultimate age, if the insured lives to reach it, he will pay, as his last annual premium, the whole sum insured, less one year's interest. Life insurance has often been attempted on this natural plan; but, for obvious reasons, it has not succeeded, and never will. It not only offers a supply of insurance far beyond any possible demand for it; but there is nothing to hold the insured to pay the increasing premiums when he gets tired of doing it. At the end of any policy year the healthy subjects might step out, and leave the sick ones on the company. To secure the persistence of the payments, sufficiently to save the company from ruin, there would have to be either a law to enforce damages for non-fulfilment of the contract, or a deposit three or four times as large as the first premium, to be forfeited in the event of withdrawal. Without some such cement, the institution, no matter how large at the start, would prove worse than a structure of sand, for the best materials would go and the worst stay.

COMMUTATION OF PREMIUMS.

Without attempting to cure the absurdity of extending the insurance beyond the insurable interest, the mathematicians of a hundred

years ago mitigated it, and effectively cured the want of security for persistence, by commuting the natural series of increasing premiums into a single premium, or into a series of equal annual premiums payable during life, or during a limited part of it, should it exceed the limit. Such premiums were substituted for the natural ones in all life insurance contracts or policies.

I should digress too far by attempting to explain the mathematical process by which the commutation of premiums is effected. It is sufficient to say, that the duplicate invention in Germany and England by Tetens and Barrett, of the celebrated "commutation columns," by which the labor is exceedingly abridged, is considered a wonderful scientific phenomenon. But perhaps it is more wonderful that science should have commuted premiums for a hundred years without making the public understand the real effect of substituting the commuted for the natural premiums. Of course science must have understood it herself.

It is obvious enough that while the natural premium, just paying for the insurance, will leave nothing in hand at the end of the year, the single or equal annual premium, which to be equivalent must be larger, will leave a certain sum. This sum in the hands of the company, after the insurance of previous years has been fully paid for, and which is commonly explained, or accounted for, as a provision for the insurance to be done in future years, when the (not natural but commuted) premium will be insufficient, is called "reserve." But simply to call it *reserve*, is not to put the proper emphasis on the transaction. It is not held in reserve to supply any such deficiency, except by a figure of speech. What really takes place is the division of the future business under the policy, into two perfectly distinct and heterogeneous, though complementary parts; to wit, a series of decreasing insurances, and a series of deposits, which by interest are to accumulate to the face of the policy, if the party reaches the ultimate age of the table. If this part of the business can in any sense be called insurance, it is self-insurance, or insurance by the policy-holder himself, and not by the company. Being a trust-fund, not due to the company for insurance done by it in the past, all of which has been otherwise paid for in advance, its amount, whenever he dies, is returnable to his heirs; and with the sum then insured by the company, makes up that named in the policy. The diminished series of insurances to be done by the company, by virtue of the commutation, has left, for the advance annual payment of it, net natural premiums which bear the same ratio to the insurance of each year as the natural premiums commuted did to the whole face of the policy. And besides this, there is a margin, or "loading," for expenses and extraordinary

mortality, which remains constant, while the insurance decreases. But all this distinction, which is sharply and precisely cut in the calculation, is obscured and concealed from the policy-holder by the wording of the policy; and still more, by always lumping together normal cost of insurance, and deposit for reserve, under the common head of premium, in the accounts.

To be a little more particular, because this point is vital to the adaptation of life insurance to the poor, let us notice the effect of paying, at the start, a premium two or three or four times larger than the natural one due to the risk of the whole face of the policy. The foundation principle of the business is, that an insured party shall contribute towards paying the death-claims of the company as nearly as possible in exact proportion to the company's exposure to loss by his death. If he pays the natural premium only, at the beginning of the year, the company is exposed to lose by his death the whole face of the policy, less the natural premium with a year's interest (for all premiums are payable in advance, and are calculated as if the losses were to be paid at the end of the year in which the death occurs). But if he pays a commuted premium, which is, of course, larger than the natural, the company is exposed to lose by his death a less sum, — less by exactly the difference between the amounts, at the assumed interest, of the said natural and the commuted premium, at the end of a year. Hence we have this proportion to find what the payer of a commuted premium should contribute in advance, according to the mortality table, for the death-claims of the year, or, in other words, to find the proper natural premium for what the company really insures him.

As the face of the policy, less the natural net premium for it with one year's interest:

Is to the natural premium:

So is the face of the policy, less the commuted net premium (and the reserve from previous years, if it is not the first year of the policy), *with one year's interest:*

To the natural net premium, or "normal cost" of the insurance actually done by the company.

And to find the sum actually insured by the company in any year: —

As the natural premium for that year:

Is to the face of the policy:

So is the natural premium, or "normal cost" of the company's insurance that year:

To the sum it insures.

Deducting the sum insured by the company in any year, from the face of the policy, what remains is

THE SELF-INSURANCE

of that year.

We have here about all the mathematics necessary, in addition to the mortality table, for the safe conduct of any policy, on a single life, with yearly interest rests.

If the insurance and self-insurance involved in the commuted net premiums, and the margins added for expenses and adverse contingencies, were all three kept distinct on the books of the company, the officer usually called an actuary, after once using his wonder-working columnar *open sesame* to ascertain the true and sufficient level premiums, might take a perpetual vacation among the stars. A smart clerk, able to apply the rule of three to a safe mortality table, could do the needful for any life-insurance company to the end of time, provided the executive officers should be honest enough not to borrow from the bank, or self-insurance fund, for extravagant expenses, with the vain expectation of replacing the money from the margins of future premiums.

Entering in the books, in lump, simply as premium, the three heterogeneous and always relatively variable quantities, — margin, normal cost of the year's risk to the company, and bank deposit, or self-insurance, — makes an actuary, with his brains full of queer, algebraic-looking formulas, which are chiefly keys to unlock various voluminous numerical tables, an indispensable appendage of existing life-insurance companies. He alone can inform the executive officers, at the end of any period, whether their institution, as a bank, is up to the requirement of the commutation, or has been robbed to pay expenses which should never have been incurred. So, also, it makes annual valuations by State Insurance Departments useful, if not necessary, to give the same information to the public.

Let me revert to commutation to say, finally and emphatically, that the effect of substituting the payment of the commuted or artificial premiums for the natural ones of the mortality table, if the policy continues till death, or the end of its term, is this, and no more, and nothing else. *It takes off from the company a large part of the insurance which would have been done by it, if the increasing series of premiums had been paid, and throws it on the insurer himself.* And this is all the better for him, if he lives as long as, being carefully selected by the company, he probably will, and the company honestly and intelligently fulfils its trust.

SURRENDER CHARGE.

Though the self-insurance, as long as the policy continues in force, cannot be touched to pay any expense, or claim on another policy, it

becomes available as "surrender charge" to secure the persistence of the premium payments. As policies were formerly, and are some of them now drawn, the whole of it is forfeited to the company by the non-payment of the premium when due, or the violation of any other condition. On whole-life policies, or very long endowment policies, the whole of it is probably not too great a charge to secure the payment of the second, or perhaps the third or fourth premiums. But after that, and sooner on shorter endowment policies, the whole of it as a charge becomes more and more excessive. In fact, an equitable surrender charge can have no relation to the magnitude of the self-insurance fund, but only to the loss which the company, as an insurance company, will experience by the withdrawal of a life better than the average; and this will be proportionate to the present value of the insurance remaining to be done by the company under the policy, which may be called the

INSURANCE VALUE

of the policy. It is very true that the excess of interest realized on the self-insurance fund over the interest assumed in the commutation may be, and often is, applied to pay general expenses and losses; but this is not a very desirable or equitable proceeding. It ought to return to the insured, to lighten his premiums. It would be better, especially for the poor, that the margins and guaranty capital should be large enough to take care of all excesses of death-claims, without leaning in the least on the interest of the self-insurance deposits. That being the case, there is no occasion to have any regard to the magnitude of the self-insurance in fixing the surrender charge, only that it should never be smaller than such charge, unless there is a special deposit made to meet it. The advantage of basing the surrender charge on the insurance value of the policy is, that on any policy terminating with the productive period of life, it will gradually decrease from the start, encouraging the party who once takes a policy to persist as long as he may need insurance, and not seriously impairing his surrender value if he has ceased to need it. In the ordinary practice, when the charge increases as the insurance value diminishes, the effect is just the reverse.

When a young man insures his life, it is much more probable that he will cease to need insurance within thirty years than that he will die within that period. Hence it is important that he should be careful to stipulate on what terms he can go out as well as go on. Inasmuch as he is, by paying the heavy commuted premium, trusting the company as a bank even more than he trusts it as an insurance company, he ought to have it definitely stated in his policy, how much he will have in the bank each year, and how much, out of that, the com-

pany will charge him for cancelling his policy, as a matter of insurance. If he sees fit to pay that charge, and have his insurance stopped, his balance in the bank should be his to withdraw, or leave there at interest. And this balance is the

SURRENDER VALUE

of his policy. That it cannot be stipulated from the start, as safely, precisely, and absolutely as the death-claim itself can be, is what is sometimes asserted, but never proved. What, indeed, is an endowment policy, but a policy with a definite surrender value stipulated at the end of a certain year? Under the same policy, is there any more difficulty in stipulating the sum which the company will pay at the end of any previous year, on surrender of the policy? Or is there any difficulty in seeing that the charge for cancelment, should diminish as the value of the insurance cancelled diminishes? The necessity of such an arrangement, if poor men are to be the subjects of insurance, is too obvious to need remark.

As I have already hinted, the ordinary rule makes the surrender charge a percentage of the reserve. From twenty-five to fifty per cent of the cash reserve is deducted, and the balance is the surrender value paid in cash. But it is a more favorite plan with the companies to give a "paid-up" policy for as much as the cash reserve, perhaps not diminished by any charge, will buy or be the single premium of. But a "paid-up" or single-premium policy, without any stipulated cash surrender value, is a particularly awkward piece of property for any one to have, especially if it covers the whole life. The single premium is simply a sum, the interest of which will keep up an annual premium policy, equal to the difference between the face of the policy and the said single premium. For example: if $500 is the single premium of a policy of $1,500, it is because the interest of that $500, discounted a year, will pay in advance the annual premium for $1,000. If you want to invest the $500 in insurance, it is just the same, whether you take the paid-up policy for $1,500 in the insurance company, or take out of it enough to pay the annual premium of $1,000 in the insurance company, and deposit the balance in the savings bank, supposing interest the same in both. In either case, if you die within the year, yours heirs will have $1,500 at the end of it. But if you live, and wish to drop the insurance at the end of the year, it will make a remarkable difference. For the "paid-up" of $1,500 the life-insurance company will, perhaps, give you only $260, and it will do uncommonly well if it gives you as much as $400. From the savings bank you would, of course, get $500, if you had put its principal there. So much for the absurdity of basing surrender charge on

reserve, and not running a life-insurance company as, what to a great extent it really ought to be, and mathematically is, a bank.

I hardly need say that

THE MARGIN, OR "LOADING,"

as it is sometimes called, which is added to the commuted net premiums, as a provision for the special insurance expenses and extraordinary mortality, ought to be proportionate to the insurance which is to be done under the policy, and not at all to the banking. Hence it has no assignable relation to the whole premium, but only to the series of normal costs of company's risks, which are variable, but usually decreasing fractions of the whole premium. Science seems to have been taking a vacation, either among the stars, birds, fishes, or roots of insoluble equations, when this subject was attended to: for the whole work was accomplished by simply adding to the whole commuted net premium, a percentage of itself; and this for all kinds of policies, from the longest to the shortest of endowments. And the working expenses, including the commissions paid to agents, were and are assessed in the same way. From this it results that the agent gets the largest reward for procuring the policy which insures the least, and the policy-holder is taxed the most for expenses who most insures himself. Probably the annals of business may be searched in vain for a purer or more stupendous blunder. If poor people are to be insured, it should be carefully avoided, especially as endowment policies are the only ones adapted to their circumstances.

STOCK OR MUTUAL.

In theory, a purely mutual life-insurance company is the cheapest. And if equitable surrender values were stipulated, so as to hold the managers to as strict and close a responsibility as those of a savings bank to its depositors, there would be no difficulty with it but the necessary agency expenses. A purely mutual company, to be stable, must have a large body of co-insurers. To obtain them, it must employ soliciting agents. This involves a very serious expense, besides some other objections. Out of about ninety millions of dollars now annually received by the life-insurance companies of this country, in premiums, about seventeen millions go for working-expenses, of which at least nine millions are for agency or solicitation expenses. When so many men have so large an interest in the accession of premiums, the risk of fraudulent insurance, or unhealthy subjects, is of course increased. But solicitation cannot be dispensed with, unless there is a capital to guarantee the insurance, large and strong enough to wait for spontaneous application. If such a capital stock can be

confined to a small profit, derived solely from the reduction of the insurance expenses within small margins, and the insurance itself within the normal cost of the risks, avoiding agency expenses, the insurance would be less costly than it is now in any mutual company; and the self-insurance, not being burdened with any of the insurance expenses, would be as cheap as it is in any other savings bank. This would, in fact, be a savings bank, with a life-insurance function. The great aim of laboring men is, or should be, to own, instead of renting their homes. The chief objection to making a loan to such a man, by which he could greatly shorten the process of becoming his own landlord, is the danger of the lender having to foreclose in case of his death. A savings bank, having a life-insurance function, could easily remove this objection; and, to a considerable extent, would find small loans, so protected, an excellent investment. Large employers, whose interest lies in having their workmen become freeholders, men of character and skill, above the stratum in which strikes vegetate, will certainly see the utility of supplying the requisite capital, even without the prospect of extraordinary profits.

But the laboring men of any State, are abundantly able to furnish all the capital necessary for such an institution. Thousands of them have money in savings banks that would be as safely and profitably invested in the capital stock of a family bank, that is, a savings bank with a life insurance function for the benefit of people of their own class. If the poor men of character and brains, whose experience of life insurance cannot but have convinced them of the imperfections at which I have hinted, would join the poor men of muscle, it seems to me, the problem of self-solicited life insurance might be solved, and a long step taken towards the solution of the great labor-question, in making every industrious family the owner of its home.

[Mr. Sheppard Homans of New York, in discussing Mr. Wright's Paper, submitted the following: —]

Suggestions for a Plan of Life Insurance without Large Accumulations, or Reserves.

Under the usual form of contract with a Life-Insurance Company, the policy-holder covenants to pay with undeviating punctuality during life, or for a stated number of years, a *uniform annual premium*, as a consideration for the sum insured which is to be paid at his death, or on his attainment of a stipulated age. The omission to pay any one of these premiums will, by the terms of the contract, work a forfeiture of the insurance, and a confiscation of the deposit portions of all previous payments. Such stringent penalties are not necessary in a contract of life insurance, and would never have been assented to, had policy-holders understood their true interests.

Every uniform annual premium paid for Life Insurance *necessarily* consists of three parts, essentially different in their nature, and which should never be confounded. (1.) The provision for claims by deaths during the year. (2.) The provision for expenses of management and adverse contingencies during the same time. (3.) The *reserve or yearly deposit* retained by the Company, and accumulated for the depositor to meet the deficits in later years, when the uniform annual premium will be less than the current yearly costs of his own insurance. In the case of endowments, these annual deposits with interest accumulations, will be just sufficient to meet the claim at maturity.

Now these annual deposits are not common property, *but are private accumulations*, held in trust for the individual depositor, and are simply payments in advance to meet the excessive costs of insurance upon the depositor's own life in the distant and uncertain future, or to secure endowments. No policy-holder has any right, title, or interest in the deposit of any other policy-holder, each one having his own proper sum in the Treasury of the Company. No deposit can properly be used to pay the claim by death of any one, except that of the person for whom the deposit was made; and such deposit serves merely to diminish the amount actually exposed to the risk of mortality upon his own individual life. In brief, the accumulated deposits or reserves held by Life Insurance Companies, should be considered *individual property*, in precisely the same sense that deposits in Savings Banks are individual property. It is true, in the former case they are *not made payable* until the death of the depositor, or on his attainment of a stated age; but it is none the less true that they are held in trust for his own individual benefit, and were derived solely from his own individual payments.

In all Life Insurance Companies, commissions are improperly paid, and expenses are improperly assessed upon the entire premium; that is, upon the deposit portion as well as upon the insurance portion. The average ratio of expenses to total income (including interest on investments) among all Companies transacting business in Massachusetts during the eight years, 1866–73, was 16.60 per cent. (See Report Insurance Commissioner, 1874.) This is equivalent to an average expense of about six and a half per cent upon the gross assets of these Companies, while during the same period the Savings Banks of Massachusetts were managed at an average expense of *about three-tenths of one per cent.* Now, six and one-half per cent per annum is as much as a prudently managed Savings Bank or Trust Company can expect to earn as interest on investments, after deducting expenses and taxes. Hence it will be seen that a sum equal to the interest earnings upon the entire assets, or accumulated deposits of policy-holders in the Life Insurance Companies doing business in Massachusetts, was absorbed in expenses of management. Not only are the expenses attending the collection and management of savings deposits in our Life Insurance Companies excessive, but the tax, or penalty imposed upon the policy-holders, for the withdrawal of their own money, is unequal and without justification. This tax has usually been a percentage upon the reserve, — the larger the accumulated deposits the greater the penalty imposed upon their withdrawal. This tax is seldom less than fifty per cent of the reserve; while, in many companies, a policy-holder can terminate his insurance only by suffering the confiscation of his entire deposits. In fact, under the

usual form of contract, a policy-holder, who terminates his insurance, *has no rights which the Company is bound to respect;* since the portion, if any, of his own deposits, returned to him in such case, is simply a matter of grace, and generally is just what the managers choose to give.

How may such Defects be remedied?

(1.) *By reform.* — Economy and accountability of management should be insisted upon, as well as a covenant or contract to return in cash the full *equity* (i.e., the total reserve, or accumulated deposit, less the cost of procuring a satisfactory substitute) to any policy-holder who, from choice or necessity, wishes to terminate his insurance.

(2.) *By removing the cause.* — A system of insurance may be adopted, which, while safe, secure, and *permanent*, shall yet do away with the necessity for large accumulations, or, in other words, which shall eliminate the Savings Bank element.

Let us look at first principles. Under the insurance portion of his contract, the individual covenants to pay each year, in future, his share of death-claims. This, assuming mortality and interest as indicated by the tables adopted, *is precisely balanced* by the insurance which the Company covenants to furnish *him* each year in future. If the person who wishes to terminate his insurance possesses a vitality greater than the average, the Company is entitled to compensation for the consequent depreciation in the average vitality of those who remain. The amount of such compensation, in a Mutual Company, should not exceed the cost of procuring a substitute equally valuable as a contributor to future death-claims. The cost of procuring a satisfactory substitute will of course vary in different Companies; but it is for each the true *surrender charge*, or tax, which should be imposed upon the termination of an insurance contract, and the withdrawal of the entire reserve, or accumulated deposits. Upon such conditions the termination of his insurance, and the withdrawal of his reserve, can work no injustice to the other policy-holders, each of whom has his own similar deposit, and cannot possibly injure the Company. Whatever the amount of such tax may be, it clearly has no relation to the deposits, which should be treated as private accumulations.

A Life-Insurance Company MUST be compensated each year for the insurance furnished, for expenses of management, and for possible adverse contingencies, and should retain from the payments of each policy-holder a sum sufficient to procure a substitute equally satisfactory, in case he should terminate his contract. Beyond this a reserve, or deposit, or provision of any kind, is not necessary, and is not always desirable.

A contract of insurance, to extend over the whole duration of life if desired, may be so adjusted each year, that *what is left* from the payment of any one year may be applied in part payment of what is requisite for the year next ensuing. In other words, the account may be *balanced* at the end of every year, in a simple, straightforward, business-like manner, so that each year *will take care of itself*, thus avoiding the necessity for large accumulations. The Company, on the one hand, will be compensated for all the work done in the past, and for all the work to be done in the year ensuing, including an ample margin for contingencies; while the individual, on the other hand, will have the option of continued

insurance if he wishes it, or of discontinuance if he prefers, without unnecessary loss to himself from previous payments.

Why should a man be compelled, as a condition for obtaining *insurance* which he needs, *to pile up deposits* for the distant and uncertain future, which he may not desire, which are expensively managed, which are beyond his control, and which are not absolutely necessary? A man seeks an Insurance Company for *Insurance*, not as a depositary for Savings. If he can use his money to better advantage in business, or by depositing in a Savings Bank, or if he has not the means to spare for accumulation, why should he be refused *insurance* which he needs, and is willing to pay for as long as he shall continue to need it? Life Insurance, pure and simple, should be furnished for those who wish it, and also *Life Insurance combined with Savings* for those who prefer the system of uniform annual premiums, so that any one may have the option by either method.

The plan proposed is in reality a series of yearly insurance contracts, in which what is left (both reserve and surplus) from the payment of any one year is applied in part payment of the regular premium, at the next higher age. In this way insurance is furnished at actual current costs, each year taking care of itself, and large accumulations are avoided. It should be a part of the contract that no medical re-examination will be required when the insurance is continued year by year.

It may be urged as an objection to this plan that the payments required will increase each year, until in time they may exceed the uniform annual premium at age of entry. This is unavoidable, and applies alike to any system of insurance. Life insurance must be paid for, and the cost usually increases with the age of the person whose life is insured. It is a question for each one to decide for himself, whether it is better to make deposits in order to provide for excesses, during old age, in the yearly cost of insurance over the uniform premium, *or to pay as he goes*, — whether it is better to pay in advance for insurance to cover a period of life which he may never reach, or, if he does, for insurance which he may not then need. The payments by the plan herein suggested, will be far less during a series of years than the uniform annual premium: afterwards they will be higher. This excess, however, may be provided for by depositing in a Savings Bank a portion of the premium saved. In the one case the insurance actually furnished each year is alone paid for; in the other, deposits are required in addition, to pay for insurance in the distant future. In both cases ALL THE INSURANCE FURNISHED MUST BE PAID FOR AT SOME TIME, and at the same yearly costs, *pro rata*, increasing with the age. No intelligent man can for a moment be made to believe that the risk of his death can be prudently assumed by any company without an adequate equivalent to be paid by himself. Unless the heavy expenses of collecting and managing deposits in existing Companies is lessened, and unless the right to withdraw these deposits — a man's own money — in case of need, be given, one would think the choice between pure insurance without accumulations, and insurance combined with savings, would not be difficult.

If the expenses attending the collection, management, and withdrawal of reserves, or savings deposits in Life Insurance Companies, greatly exceed those attending the collection, management, and withdrawal of similar deposits in Savings Banks, it is obviously the interest of depositors to choose the latter

rather than the former, at least for a portion of their savings, particularly if insurances for the same amounts upon less expensive forms be secured, as is possible.

I venture the assertion, and it is susceptible of proof, that of the premiums paid to Life Insurance Companies as hitherto managed, a very large percentage (perhaps one-half) would have been more advantageous and profitable to those who paid them if they had been deposited in Savings Banks, provided the remainder had been applied to the purchase of similar amounts of insurance upon less expensive plans, even in the same Companies.

On the other hand, I venture the assertion, and it is equally susceptible of proof, that a very large percentage (perhaps one-half also) of the deposits in Savings Banks might have been more advantageously and profitably paid to Life Insurance Companies, had the deposit functions been managed on correct principles, and had the trust been administered with equal economy. Thus all deposits in Savings Banks, intended as a provision for the depositor in old age, might with advantage be combined with the endowment feature, since larger results would be realized at maturity. Again, all deposits intended as a provision for heirs or dependents in case of the death of the depositor might with advantage be combined with the insurance feature. In fact, the possible combinations of money and its accumulations by interest, with the chances of living or dying, for the benefit of the provident, are too numerous for mention. But the right to withdraw equities at stated times, and under suitable restrictions, together with economy and accountability of administration, should be insisted upon as being absolutely essential.

One word in regard to the additional security to persons wishing insurance, which is sometimes claimed for mutual companies possessing large reserves, or accumulated deposits. It must be remembered that these are simply the aggregates of payments in advance for future insurances or endowments, and that the share of each person in the total fund should be clearly ascertainable at any time. An ample provision for current death claims is found in those portions of the annual premiums *specifically charged for that purpose*, and which, as we have already shown, are essentially different from the deposit portions of the same. No person should derive profit or advantage from any deposit except that arising from his own previous payments. Nor can he do so unless the whole or a portion of what belonged to policy holders who had terminated their insurance had been confiscated. The only *legitimate* advantage afforded by a mutual company possessing large accumulations, over one of moderate size, is in the greater economy of management which ought to be expected, but which is not always proved to exist.

From the tables on the following page we may compare the practical working for a series of years, of the new plan of insurance without accumulated deposits, with the old plan of insurance by uniform annual premiums. The examples are for two policies of $1,000, each, issued upon the life of a person aged 35 years, upon the basis of the premiums charged by the New York Companies.

A careful examination of this table will show that the new plan has several important advantages over the old system, (1.) The payments required for a

long series of years will be far less; and although in time they may be larger, yet in no case will they be more than are necessary for the death-claims, expenses, and contingencies of the current year alone. (2.) The margins available for adverse contingencies increase each year, both in amount and in proportion to the tabular or assumed cost of insurance; while by the old plan these margins are uniform in amount, although the yearly cost increases each year. (3.) If we assume the same expenses each year for both plans, at the rate of ten per cent on the initial premium for instance, as shown in the last four columns, the superiority of the new plan in point of security will be still more manifest. The portions of the margins not used for expenses or contingencies will be applied, at the end of each year, to reduce the next stipulated payment.

PURE INSURANCE;

Or Life Insurance without large Accumulations, where the Reserve (and any Surplus) at the end of each year is applied in part payment of the premium at the next higher age.

EXPLANATION. — Columns 1, 2, and 3 show the component parts into which the uniform annual premium (column 4) to secure $1,000 at death is divided. Column 5 shows the deposit, or reserve, at the end of the year, which it is proposed shall be allowed (together with any surplus) in part payment of the regular premium at the next higher age. Column 6 shows the net payments stipulated each year after the first. Column 7 shows the net amount exposed to the risk of mortality, or in other words the amount actually insured by the Company.

Age.	Component parts of the uniform annual premium.			Uniform annual premium for $1,000 at death.	Reserve or deposit at end of year. Am. experience at 4 per cent.	Net stipulated payments after the first year.	Net amount at risk in the Company.
	Margin for expenses and contingencies. (1)	Insurance portion of annual premium. (2)	Deposit portion of annual prem. (3)	(4)	(5)	(6)	(7)
25	5 68	7 70	6 51	19 89	6 77		993 23
26	5 83	7 76	6 81	20 40	7 08	13 63	992 92
27	5 98	7 82	7 13	20 93	7 41	13 85	992 59
28	6 13	7 88	7 47	21 48	7 76	14 07	992 24
29	6 30	7 96	7 81	22 07	8 12	14 31	991 88
30	6 49	8 03	8 18	22 70	8 50	14 58	991 50
31	6 67	8 11	8 57	23 35	8 91	14 85	991 09
32	6 87	8 20	8 98	24 05	9 34	15 14	990 66
33	7 08	8 30	9 40	24 78	9 78	15 44	990 22
34	7 30	8 40	9 86	25 56	10 24	15 78	989 76
35	7 54	8 51	10 33	26 38	10 75	16 14	989 25
36	7 79	8 64	10 82	27 25	11 26	16 50	988 74
37	8 05	8 77	11 35	28 17	11 80	16 91	988 20
38	8 33	8 93	11 89	29 15	12 36	17 35	987 64
39	8 62	9 10	12 47	30 19	12 97	17 83	987 03
40	8 95	9 29	13 06	31 30	13 59	18 33	986 41
41	9 28	9 49	13 70	32 47	14 25	18 88	985 75
42	9 64	9 71	14 37	33 72	14 95	19 47	985 05
43	10 02	9 95	15 08	35 05	15 68	20 10	984 32
44	10 42	10 24	15 80	36 46	16 43	20 78	983 57
45	10 85	10 55	16 57	37 97	17 24	21 54	982 76
46	11 31	10 92	17 35	39 58	18 05	22 34	981 95
47	11 80	11 32	18 18	41 30	18 91	23 25	981 09
48	12 32	11 79	19 02	43 13	19 78	24 22	980 22
49	12 88	12 34	19 87	45 09	20 66	25 31	979 34
50	13 48	12 97	20 73	47 18	21 56	26 52	978 44
51	14 11	13 67	21 62	49 40	22 48	27 84	977 52
52	14 80	14 45	22 53	51 78	23 43	29 30	976 57
53	15 52	15 32	23 47	54 31	24 41	30 88	975 59
54	16 29	16 30	24 43	57 02	25 40	32 61	974 60
55	17 12	17 38	25 41	59 91	26 42	34 51	973 58
56	18 00	18 60	26 40	63 00	27 46	36 58	972 54
57	18 94	19 93	27 42	66 29	28 52	38 83	971 48
58	19 95	21 40	28 47	69 82	29 61	41 30	970 39
59	21 03	23 04	29 53	73 60	30 71	43 99	969 29
60	22 18	24 85	30 60	73 63	31 83	46 92	968 17

NOTE. — The policy-holder should, of course, have the option, *at any time*, of continuing the insurance by the payment of the uniform annual premium at his actual age, as by the usual method. Policy-holders should have the option of designating, *in advance*, the age at which the insurance shall cease, when the full reserve, together with any accrued surplus, would be payable as an endowment. An insurable interest can rarely extend beyond the age of seventy-five years. For this reason, the insurance should cease at that, or an earlier, age, when the full reserve and accrued surplus will be payable in cash as an endowment. Any surplus arising from economy of management or saving in margins, as well as from excess of interest, might be divided annually. That arising from vitality should be retained for five years, and then be applied to reduce the subsequent payments.

EXAMPLES, AT AGE 35, OF INSURANCES BY THE TWO METHODS.

Age.	Stipulated Payments.		Margins for Expenses and Contingencies.		Amount actually insured, or at risk in the Company.		Cost of Insurance by the Tables.		Ratio of Margins to cost of Insurance.		Assuming 10 per cent. for Expenses.			
											Margin Remaining		Ratio to Cost.	
	Old.	New.	Old.	New.	Old.	New.	Old.	New.	Old.	New.	Old.	New.	Old.	New.
35	26 38	26 38	7 54	7 54	989 25	989 25	8 51	8 51	0.89	0.89	4 90	4 90	0.58	0.58
36	26 38	16 50	7 54	7 79	978 12	988 74	8 55	8 64	.88	.90	4 90	5 15	.57	.60
37	26 38	16 91	7 54	8 05	966 57	988 20	8 58	8 77	.88	.92	4 90	5 41	.57	.62
38	26 38	17 35	7 54	8 33	954 62	987 64	8 64	8 93	.87	.93	4 90	5 69	.57	.64
39	26 38	17 83	7 54	8 62	942 24	987 03	8 69	9 10	.87	.95	4 90	5 98	.56	.66
40	26 38	18 33	7 54	8 95	929 44	986 41	8 75	9 29	.86	.96	4 90	6 31	.56	.68
41	26 38	18 88	7 54	9 28	916 19	985 75	8 82	9 49	.86	.98	4 90	6 64	.56	.70
42	26 38	19 47	7 54	9 64	902 50	985 05	8 90	9 71	.85	.99	4 90	7 00	.55	.72
43	26 38	20 10	7 54	10 02	888 34	984 32	8 98	9 95	.84	1.01	4 90	7 38	.55	.74
44	26 38	20 78	7 54	10 42	873 74	983 57	9 10	10 24	.83	1.02	4 90	7 78	.54	.76
45	26 38	21 54	7 54	10 85	858 68	982 76	9 22	10 55	.82	1.03	4 90	8 21	.53	.78
46	26 38	22 34	7 54	11 31	843 18	981 95	9 37	10 92	.80	1.04	4 90	8 67	.52	.79
47	26 38	23 25	7 54	11 80	827 24	981 09	9 55	11 32	.79	1.04	4 90	9 16	.51	.81
48	26 38	24 22	7 54	12 32	810 88	980 22	9 75	11 79	.77	1.04	4 90	9 68	.50	.82
49	26 38	25 31	7 54	12 88	794 13	979 34	10 01	12 34	.75	1.04	4 90	10 24	.49	.83
50	26 38	26 52	7 54	13 48	777 01	978 44	10 30	12 97	.73	1.04	4 90	10 84	.48	.84
55	26 38	34 51	7 54	17 12	686 61	973 58	12 26	17 38	.62	0.99	4 90	14 48	.40	.83
60	26 38	46 92	7 54	22 18	590 75	968 17	15 16	24 85	.50	.89	4 90	19 54	.32	.80

LEGAL EDUCATION AND THE STUDY OF JURISPRUDENCE IN THE WEST AND NORTH-WEST.

By Prof. W. G. Hammond of the University of Iowa.

Read May 14, 1875.

The jurisprudence of the North-west is of course substantially the same with that of all the other sections of the Union. Each State has its peculiarities; and its legislation and reports will be seen to be influenced very largely by the law of that State from which the greater part of its settlers came. Decisions as well as emigrants move across the continent in isothermal zones. If we had time for an interesting topic not directly connected with our subject, it would be easy to illustrate this from the reports of all the newer States, from Minnesota to Arkansas, and from Ohio to Oregon. But there are other respects in which all the North-western States resemble each other more than they do any of the older States. This resemblance is due to such facts as these: That in all of them the titles to real estate are remarkably simple, brief, and free from the remains of feudal doctrine. Any other estate than a fee simple, any other conveyance than one of such a fee, is a rare exception to the general rule. Our titles are like our boundaries, on a uniform pattern of straight lines and right angles; and both differ more from the complicated and intricate titles of the older States than the latter do from those of the mother country. A further consequence of this fact is, that the distinction between real and personal property has been reduced almost to a minimum. It is not merely that our legislation tends to treat both alike, as it always has tended in America; but the want of hereditary local associations, and other causes, have almost effaced the difference between "hereditaments" and "chattels" from the popular consciousness, so that partners buy and sell land in their firm names, and administrators collect rent and pay taxes; and it is sometimes not easy to make a law-student see any thing more than a technical reason why this should not be so. Nay, it is sometimes difficult to impart a practical conviction of the distinction to an appellate court.

Another such fact is, that none of our systems date back to the period of rigid forms and strict constructions in the law. The change that has come over the whole country in this respect is too obvious to

remark. But the older States have reports of the earlier period, and legal ideas, distinctions, lines of decision, that were then formed; and the full force of the change is only seen in the North-west, where all is new. True, some of our States retain the so-called "forms of action;" still more of them retain the formal distinction between law and equity. But the legal doctrines, the differences of substantive law, that were based on these, have disappeared in those States as completely as elsewhere. Nothing shows more convincingly the purely historic nature of law as a science, than the homogeneousness of doctrine between the North-western States, when compared with their different methods of procedure; and, on the other hand, the differences between any of these States and that Eastern State whose procedure it has most nearly copied. Whether the forms of action are nominally preserved, or not, they have lost all power over the substantive rights of parties. Whether the distinction between law and equity is maintained, or not, the strict law —*jus strictum* — is a thing of the past; and the decision of cases depends chiefly upon the judge's view of the equities.

I have dwelt too long on this point if it is considered merely as a digression; but I hope to show you hereafter that this vague subjective character of our jurisprudence has really the most important bearing on the question of legal education. Formerly the danger was, that the study and practice of law might make men narrow, quibbling, technical; and the chief effort of a judicious instructor was, to counteract this tendency, and inspire broad and free habits of thought. But of this danger we see but little at present. Our students are more apt to err in the direction of loose and indistinct habits of thought; and most of them need to have cultivated exactness and precision, accuracy in the use of terms, and logical forms of reasoning, in order to counterbalance the prevailing tendency of the professional mind.

Other causes combine to increase the tendency to vagueness and uncertainty of the law. The bar of most Western States has been an unorganized body, of very fluctuating membership, without fixed professional traditions, made up of new-comers from all parts of the Union, many of them without experience and almost without legal training, and accustomed to look for precedents at random through all the volumes of all the series of reports, without discrimination or guiding principles. The bench has not always been filled with men capable of evoking order from such a chaos; no bench, indeed, however able, can construct an harmonious and symmetrical system of State law without the aid of a well-trained bar; and until lately the conditions of legal education were such that a well-trained bar of inexperienced lawyers was an impossibility. Legal training was to be acquired by practice,

and by long practice only. The system of learning law by attendance in an office alone has sufficient objections under the best circumstances. In such offices as most of our Western villages supply, it is a mere fiction. It requires a busy office, where work enough is going on all the year round to keep clerks and students regularly employed, and where there are fixed habits in business. It requires frequent attendance in courts and public offices, where a student has an opportunity to observe the course of procedure, and to learn that large part of practice which is nowhere to be found in the books. But it is only in a few large cities of the West, that these conditions are supplied. In the smaller county-seats and villages, the legal year is made up of a few very busy weeks during the sessions of the courts, semi-annually or oftener; and of long intervals of comparative idleness, when the office is often closed, and the lawyer occupied in other ways, or absent at a term in another county, or perhaps trying a cause before some country justice. If he is at all competent to instruct a student, the probability will be that he has neither time nor inclination to bestow upon the task. Studying law in such an office means merely reading through a few of the commonest text-books, and trying to retain by sheer force of memory the words of the text. Of other training, such as the cultivation of legal habits of thought, and the tracing of principles, there is absolutely none: each page, each rule, stands by itself in his memory; and all are on a level. The little business that he happens to see going on may serve to illustrate and impress a few of them; but the chance of a happy selection of these is a small one. Generally the business going on in the office during vacation serves only as a distraction from the tedious process of memorizing law, and as such is welcomed or avoided according to the measure of his industry. As soon as he thinks his memory sufficiently stocked with the phrases of the text-book to answer the questions of an easy examination, he is admitted to the bar, and then begins his real professional education.

The want of some better legal education than this could not but be deeply felt in a region where the practice of law, like all other business, is chiefly in the hands of young and inexperienced men; and it is to the sense of that want, that we must attribute the very remarkable growth of law-schools. These institutions have, indeed, rapidly advanced in public favor all over the country. But there is no part of it where they have grown so fast, and become so nearly the principal means of legal training, as in the West and North-west; and we may attribute this fact to the combination of causes I have pointed out, — the comparative importance of early training in a bar of young men, the lack of such offices as could give that training in a thorough and satisfactory manner, and the peculiar character of Western law.

Whatever judgment we may form upon the relative value of school and office training for the bar, it is an injustice to charge upon the schools, as has sometimes been done, that they have injured the cause of legal education by tempting students from the offices by the offer of an easier way. The true relation of cause and effect is just reversed. The growth, if not the very existence, of the schools has been brought about by the failure of the offices to furnish what the students need. Wherever the offices can do this, they always have an important part to play in legal education; though I think that even in such cases that part should only be supplemental to a full and thorough course in a law-school.

It may seem superfluous to remark here, that the most important result of a course of professional study, by either method, is not so much the amount actually learned, as the mental habit acquired, and the judicious and thorough preparation made for a professional life which is to be one continued course of study throughout. Yet, simple and familiar as this remark seems, nothing is more apt to be overlooked in arguing the merits of either method of study. It often seems to be tacitly assumed, that the lawyer is to remain all his life just as the day of admission finds him, and consequently that in choosing a course of study he must be careful that it omits nothing of which he may have need afterwards. And it being also assumed that a law-school teaches only theory, while in the office he must unavoidably pick up a little theory in the midst of practice, the natural conclusion is drawn, that a term of office-study is the essential part of a student's preparation, while the law-school course may well enough be added if time and inclination serve, but under other circumstances may also well be dispensed with.

We do not question at all the position from which this argument sets out, — that no man can be a successful lawyer, who does not combine with a theoretical knowledge of law a very considerable amount of practical experience in its application. It is in the next step that we find the fallacy, — in the assumption that the relative importance of these two factors is the same during the years of pupilage as in after-life. We believe that a student who makes practical skill the first object of his novitiate is beginning at the wrong end, and that the more successful he may be in carrying out such a purpose, the more danger he incurs of seriously cramping his entire future development. If he goes through his course of study in this way, postponing all systematic study of legal theory till the time when he is engaged in active business, nothing but very remarkable talents, or a miracle, will ever raise him to the higher ranks of the profession. But if he devotes his student years to careful and patient study of law as a system, of the

theory of his profession, he begins at the right end, and practice will be learned as it is wanted.

Assuming, then, that the law-school is to be the place where legal education will chiefly be given for the future, it becomes a very important question, how those schools shall be organized and conducted to best answer their purpose. None know better the present imperfections of the course and method of all our schools, than those who are actually engaged in teaching. I must not be suspected of any wish to depreciate what is now done in all of them, and certainly not of any wish to make unjust discriminations between them, if I devote the rest of this paper to that part of the subject.

In the first place, it is to be hoped that we may have more unity of action among different schools; that teachers may have a means of communicating with each other, learning by others' experience the best methods of instruction; and, by a comparison of views, reaching at last a uniform and standard plan, which, among its other advantages, will have that of giving a more definite value to their degrees. I do not mean that every law-school could or should be expected to teach exactly the same subjects in the same manner, but only that the same kind of uniformity should exist in their courses which now obtains among our best colleges in regard to the course for undergraduates.

Again: it is much to be desired, at least in most of our schools, that the teaching-force should be larger and more efficient than it now is. The position of a teacher in a law-school should have a professional recognition which it has not yet obtained; and I may add, that wherever possible the remuneration should be such as would attract some of the best minds of the profession, and induce them to devote themselves entirely to the task. With all respect for the very distinguished and able gentlemen who are at present exceptions to my remark, I must say that law-schools never can become all that they should be, until they have the entire service of their teachers. A busy judge or lawyer may, no doubt, render most valuable service in such a school, by lectures or other modes of instruction, to which he can only give an occasional hour; but no number of such teachers can properly conduct a school through all its studies, without at least some one mind to guide and direct the course. The most valuable instruction may only embarrass and overload the minds of the class, if it is not imparted in due time and in a proper system; indeed, our law-schools can never be what they should be, until many minds have given all their energies, and made it their life-work, to develop that system. It is very desirable too, that there should be a considerable division of labor. The law is too vast a field to be thoroughly surveyed by one

mind, and that survey kept always up to the requirements of the actual time. Our schools should be so strong-handed that (as in the German universities), one professor could devote himself to one, or a very few topics, and make himself so much the master of these, that his students can rely upon learning from him all that can be learned upon that topic, and upon learning it in the best possible manner.

Again: the range of studies in our law-schools is capable of very great and profitable increase. If our students came altogether or mainly from the colleges, we could afford to trust their general education for much of which every lawyer has particular need; but in fact only a very small proportion of our law-students have a college degree. From such inquiry as I have been able to make, the proportion falls much below one-half, even in the wealthiest and best-educated sections of the country. In the school with which I am most familiar, the proportion is about twenty per cent; and I believe that is not far from the general average of the country.

When we consider that all the colleges in the United States do not graduate yearly so many men as are admitted to the profession of law alone, it will be seen that the rule that some have proposed, admitting only college graduates to the law departments, is visionary and impracticable in the highest degree. It would ruin the law-schools before it raised the standard of education in the profession. I must venture another remark, — that some elements of culture of the greatest value to the lawyer are not always found to be among college graduates in a greater degree than among other and less-educated men. Nothing but actual experience would ever have made me believe how many of our college graduates are destitute of such a knowledge of English and American history as forms the best possible basis for the study of law. Few of them, again, have the training in formal logic which a lawyer needs. I might go on with the list, but have already said perhaps more than is perfectly safe in the present condition of public opinion on the subject. I do not by any means wish to depreciate the value of a collegiate education; but those who have it are the students for whom a law-school needs to make the least provision. Its chief duty is toward the great majority who come to it with an ordinary English education, and sometimes with even less. To these the law-school should be able to give all they need for useful and intelligent professional life. There should be, in every such school, classes in history, especially English and American; classes in logic and rhetoric, in political economy, and, indeed, in all the branches of Social Science which are yet in a shape to be usefully taught in the class-room. I question whether even Latin might not usefully be added to this list. A student who had none but an English education might profitably be advised to devote a

certain part of his time to its study, even with reference alone to his preparation for the bar. There seems to me to be no other discipline known to our schools, so admirably calculated to prepare a mind for legal thinking, as the critical study of a language; and when we consider the manifold value of the Latin, as the best subject for such critical study, as the source of nearly all the abstract part of our language, and as the depository of much of our older and of nearly all of the older foreign law, there can be no question of the preference to be given to it. I speak with diffidence of this subject; but I am strongly inclined to think that a year of earnest work by students of the age found in our law-schools, and with direct reference to professional purposes, would be found sufficient for the task, and, indeed, as effective as the much longer period given to the language in a general course of study. Of course I should not expect in a year to make elegant Latin scholars, or even to familiarize students with the classical authors of the golden age; but from my observation I should say that very much of the labor spent upon these objects in the regular college course has no direct connection with the culture or habits of thought of a lawyer.

I have mentioned these subjects rather as examples of what might be done, than with any hope of giving an exhaustive list, or marking out all the directions in which a thoroughly equipped law-school could usefully aid its students. These subsidiary branches should of course be optional. There might perhaps in course of time be some standard of acquirements to which every graduate might be required to attain before receiving a degree; but, the more the school was able to furnish, the higher it could justly fix this standard.

It might fairly be hoped, too, that the standard would be progressive, and that in a generation or so such an effect might be exerted upon professional opinion that the schools would be well sustained in requiring very much more than we should now consider possible. But I shall make no attempt to depict all that a law-school should be. This has been so well done by the venerable man who was but recently the president of this Association and of Yale College, that I must be allowed to quote his language: —

"Let the school, then, be regarded no longer as simply the place for training men to plead causes, to give advice to clients, to defend criminals; but let it be regarded as a place of instruction in all sound learning relating to the foundations of justice, the history of law, the doctrine of government, — to all those branches of knowledge which the most finished statesman and legislator ought to know. First of all, I would have the training essential to the lawyer by profession as complete and thorough as possible. Let that be still the main thing; and let the examinations, together with the appropriate theses, be a proof that every graduate has fairly earned his degree. But with this let there be ample

opportunity for those who wish the aid of teachers in studying the constitution and political history of our country, to pursue their studies in a special course by the side of or after the preparation for the law. Let the law of nations, the doctrine of finance and taxation, the general doctrine of rights and the state, the relation of politics and morals, be within the reach of such as wish to prepare themselves for public life. Let there be the amplest opportunity for the study of English institutions, even far back into the middle ages, for that of Roman history and Roman law, for that of comparative legislation, and for feudal and canon law. Let the plan of the library be expanded so that it shall furnish the best books on all branches and topics connected with law, legislation, and government. Can it be doubted that such an institution, of which I have sketched a faint outline, would be of vast service? that its influence would reach into the halls of Congress, into the departments of government, that it might become a fountain of light through the whole land?"

But after all, as Pres. Woolsey says, the training essential to the professional lawyer must be the main thing. It would be the greatest of mistakes to add these subsidiary branches, and aim at general culture, without first making the instruction in law as complete as possible. To this point, then, I will confine myself in the rest. Let us settle, in the first place, what is the main object of a law-student. This is too often assumed to be merely the learning of a certain number of positive rules. Men talk as if the student's only object were to lay up in his memory, as in a storehouse, the knowledge that he is to use in after-life. Nothing could be more misleading. Whatever truth there may have been in this view when the books of the law were few, and much of the most valuable part of it was preserved by practice and oral tradition, it is now utterly impossible (and it would be useless even if it were possible) for a student to commit to his memory all the law which he will probably have occasion to use, even in the first few years of his practice. The number of points has become so vast, and access to them, when wanted, is made so easy by many treatises and digests, that a lawyer must not think of knowing them all: in regard to many, he must be content with relying upon knowing where the law he may want is to be found. Again, in spite of the enormous number of these points, it is certain that a large proportion of those which fall to his share in actual practice will be new ones, not exactly governed by any of their predecessors. Something more than mere memory of a positive rule will be necessary in almost every case he has. Besides, these rules are all couched in terms of more or less of technical significance. They are useless until he has learned the full meaning of the terms; that is, until he has studied the institutions, relations, and conceptions with which he has to deal; or, in other words, until he has learned to translate the ordinary facts of daily life into their correct legal equivalents. His

whole professional life will be spent in determining the exact jural force of all the acts which men can perform in the manifold complications of modern society. He will have to deal with innumerable new combinations of all the elements of human life; but these elements, in their nature and relations to each other, will always be substantially what they have been, and now are. As the physician might know the whole of the Materia Medica, and carry in his memory a list of all the diseases that have ever been observed, and yet be only a learned dunce, if he have not learned to make a true diagnosis, to combine correctly the different features of a case, and to estimate justly the probable effect of a remedy; so the young lawyer, however well stocked his memory may be, will fail in practice, if he have not cultivated his habits of legal thought, if he have not learned to estimate aright the legal value and weight of every phenomenon, and to judge correctly of the consequences to which a given course of action will lead. In brief, the first and chief business of the law-student is to familiarize himself with the elements of jural life in the people whose law he is studying, and to estimate correctly the practical effect of all those elements. This seems to be the meaning of the common phrase of "legal habits of thought;" and such habits it is the business of the law-schools to impart. Of course, I do not deny that it must teach a large amount of positive law. No habits of legal thought can be formed without a certain amount of material for the mind to work upon; but, after this amount has been acquired, it really makes very little difference whether the student's accumulations during his novitiate are greater or less. At greatest, they will only constitute a very small fraction of what he will need in the course of his practice. To acquire the rest, will be the work of his whole lifetime; but the ease or difficulty, the efficiency or inefficiency, of this lifelong work, will depend, most of all, upon the habits of legal thought acquired by the student. It is with particular reference to this, then, far more than with reference to the amount of law communicated, that we must estimate the value of different methods of study.

Those methods now in use are chiefly three, — lectures, reading of text-books, and the study of actual cases, either in the reports or in mootings. Lectures have the great advantage, that they enable the teacher to put before the class what they most want to learn, in the shape best adapted to them, and with the least mixture of extraneous and confusing matter. They always must be, therefore, important instruments of legal education. On the other hand, lectures alone are the least effective means of imparting that judgment, that legal habit of mind, which I have said to be the student's first object: they rather presuppose this; and their value to the student is usually in direct

proportion to his previous culture. I believe the experience of all law-teachers has shown, that, with a class made up as most of our classes are, lectures alone cannot be relied on, even to fix their substance in the student's memory. They have also the disadvantage that they cannot be adapted to the different requirements of each student. The law must be stated in the same form to him who has nearly completed his course, and to him who is just commencing; to the quick of apprehension, and to the dull. There is no means of ascertaining and correcting misapprehensions, none of gauging the student's advance, and none of that stimulus to the mind which results from the reciprocal interchange of thought, even in the form of question and answer. Unless the student comes to the lecture with a mind already trained, the purely receptive state in which the lecture keeps him is the least favorable of all to activity of thought. Treatises afford the most convenient means of studying; and when read under the guidance of a teacher, and with daily examinations and oral explanations, must always, no doubt, be an important means of school instruction. The chief difficulty consists in finding treatises adapted to that purpose. Any thing more unfit to be put in a student's hands than the majority of those which have come from the press in such numbers during the few years past, can hardly be imagined. Made up principally from the digests, arranged upon any plan that suited the author's fancy, but scarcely ever with any reference to a scientific arrangement of the law, even the best of them are apt to perplex more than help him. They are intended for quite a different purpose, — to enable the practising lawyer to find conveniently an authority upon any case he may have in hand. The object therefore is to string together as many points as possible, rather than to trace the effect of legal causes. Exceptions receive far more attention than rules, applications far more than principles. The student rises from the perusal of one with the impression that the law consists of a vast number of arbitrary rules, all of about equal importance. His natural tendency to make the study of the law a matter merely of memory, rather than of training, is confirmed instead of corrected; and a student who has learned the law entirely by means of treatises has usually no training whatever in that most important branch of legal education we have already described, He has no notion how the rules are to be modified, or how any case would probably be decided that does not come within the exact language of any rule. In brief, their office is simply to supply the necessary material for the course of study, while all the more important part of the work already referred to must be done outside of them. There is another objection to the treatises now in use, which perhaps can never be entirely got rid of. The English treatises describe a

system of law varying in very many important points from our own. The best of them for a beginner is yet Blackstone; and that describes a system which now exists nowhere, and the scientific basis of which is obsolete to modern thought. But most of our American treatises are even worse for a student, because they describe no system whatever. The necessity of adapting them to sale and use in almost forty different States renders necessary either a vagueness of statement very prejudicial to habits of close thinking, or else confuses his mind with a multiplicity of varying rules, exceptions, and qualifications, and statutory changes. The mature lawyer finds no difficulty in using such books; but the beginner, who requires above all things clearness, directness, and precision of statement, is not merely hindered in his progress, but is in danger of having his whole conception of the law rendered cloudy and uncertain, for the want of a few strong outlines, clearly and boldly drawn, and impressed so plainly upon his mind that they serve to arrange all his after acquisitions upon. I fear these criticisms will seem captious and unjust to those who have only used those volumes for the purpose for which they were intended; but any one who has attempted to instruct a class in almost any of our modern treatises will be likely to state the case even more strongly than I do. We have, indeed, some few treatises intended for the use of students; but most of them err in one of two directions: they either present a meagre, bald abridgment of legal doctrine, of which a beginner can hardly appreciate the meaning; or else they aim at popular use, and discuss the subject in a vague, loose, and incorrect style, which is the worst possible preparation for critical study. What the student needs is a carefully drawn sketch of the leading principles, most important institutions, and jural relations, using no term before it is carefully explained, but clothing its explanations and definitions in the most exact language, and treating the whole subject with the strictest and most critical accuracy of statement. The exceptions and qualifications of the rules, and their application to particular facts, have no place in such a work. Unless they are intended for a single State only, all details of State legislation are also superfluous; and, if one rule more than another should be remembered in constructing such a work, it should be, that whatever is superfluous in it is a positive blemish and hinderance. Surplusage *does* vitiate here, if nowhere else in the law.

The third method, that of studying cases, has very decided merits peculiar to itself. It is the only one of the three which directly and essentially trains the student in habits of legal thought. He learns not only rules, but the sources from which rules proceed; and he insensibly acquires a habit of measuring the greater or less elasticity of each rule in connection with diverse states of fact, which is, perhaps,

the best possible substitute for actual practice in ripening the legal judgment. If the cases are judiciously selected and combined, the amount of law which can be learned in this way, within the ordinary period of pupilage, is perhaps as great as the beginner will require; but it must be confessed that the chief objection to the method is its slowness. Until our students are willing to devote more time than they ever yet have done to preparation, this method can never become the sole one in a law course. It must be combined with others; and it easily may be. Cases may be stated and discussed by teachers and students, in connection with a course of lectures, and form indeed a most desirable supplement to such a course; and, when we have treatises prepared expressly for use in our law-schools, the most valuable will no doubt be those which guide the student to a large use of illustrative cases, and instruct him in the best method of studying them.

I should be glad to add a few words on the Roman law and its historical connection with our own, and on the possibility of using that as a means of better instruction in the elements of our own law; but I feel that I have trespassed too far on the patience of the association, and that I must reserve a subject of so much importance for separate treatment.

THE GENERAL MEETING OF 1875.

Held at the City Hall, Detroit, May 11–14, 1875.

It has been the custom of the American Social Science Association, to hold two meetings in a year, besides department meetings. The Annual Meeting, by custom, is held in Boston on the second Wednesday in January. It is principally a meeting for business, — the election of officers, hearing of reports, &c.; but a few general papers are read. The General Meetings of the Association for papers and discussions are held in different cities from year to year; sometimes in the spring, and sometimes in the autumn. That for 1873 was held in Boston (May 13–15); that for 1874, in New York (May 19–23); that for 1875, at Detroit. The first General Session at Detroit was on Tuesday evening, May 11, at 7.30, P.M.; and afterward, on the three following days, the general sessions were twice and sometimes thrice a day, continuing until 5.30, P.M., May 14, at which hour the sessions finally closed. The Conference of the Boards of Public Charities began at 10, A.M., on Wednesday, the 12th of May, and continued through Thursday, but with no evening sessions. The Departments of Health and Education held joint sessions on Tuesday and Wednesday. During the whole meeting, the persons who read papers, or joined in debate, were nearly a hundred in all.

There were special sessions to consider questions of Education and Jurisprudence; the whole number of separate sessions, general and special, being *eighteen*, — namely, on May 11, *one;* on May 12, *eight;* on May 13, *six;* and, on May 14, *three*. The average length of each session being nearly three hours, the whole number of hours spent on addresses and debates was about fifty. A full report of all that was read and said would fill more than eight hundred pages of our *Journal*. The Proceedings of the Conference of Charities, as printed last October, cover more than one hundred pages. A selection from the papers at the other sessions is given in the eighth number of the *Journal of Social Science*. The whole list of papers and debates is as follows: —

Tuesday, May 11.

1. An Address by the President of the Association, Hon. David A. Wells of Connecticut.

2. A Paper by DAVID A. WASSON of Boston, on *The Relations of Church and State in Germany.**
3. A Report from the Secretary of the Health Department, Dr. D. F. LINCOLN, introducing Papers on *The Health of Pupils in the Public Schools.*

Wednesday, May 12.

4. A Report on *Ocean Lanes for Steamships,* by R. B. FORBES of Boston.*
5. A Debate on *Problems of Trade and Industry in the Southern States.*
6. A Paper by GAMALIEL BRADFORD of Boston, on *The Financial Policy of Great Britain and of the United States.**
7. A Report on *Printing for the Blind,** by Pres. ELIOT of Harvard University.
8. A Paper by Dr. D. F. LINCOLN, on *The Nervous System as affected by School Life.**
9. A Paper by Dr. JAMES J. PUTNAM of Boston, on *School Gymnastics.**
10. A Paper by Mme. DORA D'ISTRIA of Florence, on *The Education of Women in Italy.**
11. An Address by Gov. BAGLEY of Michigan, on *The Michigan Public Charities.**
12. A Paper by Dr. NATHAN ALLEN of Lowell, on *Insanity.**
13. A Communication from Mr. GEORGE WALKER, covering a letter from M. VICTOR BONNET on *The Financial Situation of France.**

Thursday, May 13.

14. A Paper by GEORGE S. HALE of Boston, on *Medical Charities.*
15. A Paper by ELIZUR WRIGHT of Boston, on *Life Insurance for the Poor.**
16. A Paper by Prof. WILLIAM T. HARRIS of St. Louis, Mo., on *Ideal Education in America.*
17. A Paper by HAMILTON A. HILL, Esq., of Boston, on *Immigration.**
18. A Paper by BONNEVILLE DE MARSANGY of Paris, on *A New Method of Repressing Crime.*
19. A Paper by Miss MARY CARPENTER of Bristol, Eng., on *What should be done for the Neglected and Criminal Children of the United States.**
20. A Report by the General Secretary, F. B. SANBORN, on *The Work of Social Science, Past and Present.*

21. Communications from Corresponding Members, Dr. Farr, H. Dunning Macleod, &c.
22. A Paper by Robert Treat Paine, Jun., of Boston, on *Homes for the People.**

Friday, May 14.

23. A Paper by Rev. W. G. Eliot, D.D., of St. Louis, Mo., on *The Treatment of the Guilty.**
24. A Report by Dr. John W. Hoyt of Wisconsin, on *The Railroad Question in the United States.**
25. A Paper by Prof. William Watson of Boston, on *The Railroad and Canal System of France.**
26. A Paper by A. P. Sprague of Troy, N.Y., on *The Railroad System of the United States.**
27. A Paper by Prof. C. A. Kent of Detroit, on *The Organization of Political Parties.**
28. A Paper by Hon. Dorman B. Eaton of New York, on *The Experiment of Civil Service Reform in the United States.**
29. A Paper by Prof. William G. Hammond of Iowa City, on *Legal Education in the West.**
30. A Paper by Prof. Emory Washburn of Harvard University, on *Limitations of Judicial Power.**

VOTES PASSED.

During the sessions of the Detroit meeting, various resolutions and votes were adopted, some of which have already been published in the Proceedings of the Conference of Charities. Dr. Hoyt, one of the Vice-Presidents of the Association, offered the following resolution, which was adopted and referred to the Executive Committee for consideration as to the best mode of obtaining the end sought, and also of complying with the request of the Philadelphia Social Science Association, for a General Meeting in that city in 1876: —

Whereas, The Centennial exhibition, to be held at Philadelphia during the year 1876, would afford a favorable opportunity for a general conference of workers in the field of social science from all parts of the world; therefore —

Resolved, That this Association will call an International Social Science Congress for that time and place; and that a committee, consisting of the President of the Association, and four other members of his appointment, shall be charged with the duty of making suitable arrangements for calling such a Congress.

* The papers marked * were debated, some of them at great length, but no full report of the discussions has been preserved.

The committee appointed under this resolution were Messrs. D. A. Wells, J. W. Hoyt, Henry C. Lea, Edward Atkinson, and F. B. Sanborn; and these gentlemen, under instructions from the Executive Committee, finally arranged for a Conference rather than a Congress at Philadelphia; the programme for which appears on a subsequent page.

The following resolutions were also passed: —

Resolved, That the thanks of the American Social Science Association are due and are hereby tendered to the agents of the Associated Press, to the correspondents of the daily newspapers in other cities, and especially to the editors, publishers, and reporters of the press of Detroit, for the extraordinary skill, patience, industry, and enterprise with which they have given publicity to the addresses, papers, and debates of the general meeting of 1875.

Resolved, That the thanks of the Association be tendered to H. B. Ledyard, Assistant General Superintendent of the Michigan Central Railroad; to W. K. Muir, General Superintendent of the Detroit & Milwaukee Railroad; to Andrew Watson, Superintendent of the Great Western Railway; and to T. B. Sargent, Superintendent of the Detroit & Bay City Railroad, — for abatement of fare to members of the Association.

Resolved, That the thanks of the Association be tendered to the Hon. Hugh Moffat, Mayor of Detroit, for the use of the hall in the Moffat Building.

Resolved, That the cordial thanks of this Association be, and they are hereby, tendered to the Common Council of the City of Detroit and to the Board of Auditors of Wayne County, for the free use of the elegant rooms in the City Hall so generously placed at the disposal of the Association.

At a meeting of the Executive Committee of the Association, held in Boston, May 29, 1875, the following votes relating to the Detroit meeting were passed: —

Whereas, It is the sense of the Committee, that the General Meeting at Detroit was one of the most successful ever held by the Association, and that this success was largely due to the great skill and labor of the local committee; *Voted*, That the thanks of the Executive Committee be conveyed to the local committee for the great service, and that the Secretary be requested to forward a copy of this vote to Messrs. C. I. Walker, H. V. Brown, and Z. R. Brockway, of Detroit.

Whereas, The courts of the city of Detroit adjourned at such time as allowed the Bench and Bar of that city to attend the meetings of the Association; *Voted*, That thanks be returned to the Judges of those Courts, and also to the Bar of Detroit, for their courtesy and assistance in promoting the objects of our Association.

THE CONSTITUTION, OFFICERS, AND MEMBERS

OF THE

AMERICAN SOCIAL SCIENCE ASSOCIATION.

This Association was established more than ten years ago, having been organized in Boston at a public meeting, Oct. 4, 1865, at which the late Gov. Andrew of Massachusetts presided; and has had for its Presidents, Prof. W. B. Rogers and Dr. Samuel Eliot of Boston, George William Curtis of New York, Rev. Dr. Woolsey of New Haven, and David A. Wells of Norwich, Conn. Its members have varied in number from 150 to 600, and are now about 400. Its object is to investigate and discuss all questions belonging to that new and broad domain of thought and practical activity known as *Social Science;* and its methods are, the holding of public meetings, the formation of committees for special research, correspondence with all parts of the country, and the publication of information in various ways. It comprises five Departments, in either of which its members may enroll themselves, but which are managed by Committees appointed by the General Committee, which, in turn, is elected annually by the whole body of members. A copy of the Constitution is subjoined: —

CONSTITUTION.

I. This Society shall be called the American Social Science Association.

II. Its objects shall be classified in five departments: the first, of Education; the second, of Health; the third, of Trade and Finance; the fourth, of Social Economy; the fifth, of Jurisprudence.

III. It shall be administered by a President, ten Vice-Presidents, a Treasurer, and a Secretary; an Executive Committee charged with general supervision; five Department Committees, established by the Executive Committee, charged with the supervision of their respective Departments; and such local Committees as may be established by the Executive Committee at different points, to serve as Branch Associations. The Executive Committee shall consist of the President, Vice-Presidents, Treasurer, and Secretary; the Chairman and Secretary of each Department Committee; and twenty or more Directors, with power to fill vacancies and to make their own By-Laws. The President, Vice-Presidents, Treasurer, Secretary, and Directors shall be chosen annually

by the members of the Association on the second Wednesday of January, and shall hold office till their successors are chosen. The President, or in his absence a Vice-President, shall be Chairman of the Executive Committee. The Chairmen of the Department and Local Committees shall be chosen at the pleasure of their respective Committees. Whenever a Branch Association shall be organized and recognized as such by the Executive Committee, its President shall be *ex officio* one of the Directors of the American Association, and, together with the Secretary and Treasurer, shall be entitled to all the privileges of membership in that Association. And whenever a Local Department shall be organized and recognized as such by the Executive Committee, its Chairman shall become *ex officio* a Director and member of the parent Association.

IV. Any person may become a member by paying five dollars, and may continue a member by paying annually such further sum as may be fixed at the annual meeting, not exceeding ten dollars. On payment of one hundred dollars, any person may become a life-member, exempt from assessments. Honorary and corresponding members may be elected, and exempted from the payment of assessments.

V. The Executive Committee shall have sole power to call and conduct General Meetings, and to publish the Transactions and other documents of the Association. The Department Committees shall have power to call and conduct Department meetings.

VI. No amendment of this Constitution shall be made except at an annual meeting, with public notice of the proposed amendments.

An important feature of our work must be the formation of Local Departments or Branch Associations in different parts of the country, through which the parent association can reach more readily the sources of information and of influence in each locality. Such an association has long existed, and has done much useful work, in Philadelphia; others are now formed in St. Louis, New Haven (Conn.), Detroit, and Chicago. No Local Departments have yet been organized, as provided for in the Constitution. A list of the officers of Branch Associations is added to the list of Department Committees in the parent Association.

OFFICERS AND MEMBERS OF THE ASSOCIATION.

The Officers and Members of the American Social Science Association at present (May 1, 1876) are as follows, in the various Departments and classes wherein they are enrolled: —

OFFICERS OF THE ASSOCIATION, 1876.

President.

DAVID AMES WELLS, Norwich, Conn.

Vice-Presidents.

CHARLES W. ELIOT, Cambridge.

ISAAC SHERMAN, New York.

H. C. Lea, Philadelphia.
Theodore D. Woolsey, New Haven.
Martin B. Anderson, Rochester, N.Y.
J. W. Hoyt, Madison, Wis.
Charles I. Walker, Detroit, Mich.
William G. Hammond, Iowa City.
D. C. Gilman, Baltimore.
W. T. Harris, St. Louis.
W. H. Ruffner, Richmond, Va.

Secretary.

F. B. Sanborn, Concord, Mass.

Treasurer.

Gamaliel Bradford, Boston (5 Pemberton Square).

Directors.

Emory Washburn, Benjamin Peirce, *Cambridge.*
T. C. Amory, J. M. Barnard, R. M. Mason, J. S. Blatchford, E. E. Hale, George T. Angell, J. M. Forbes, Mrs. John E. Lodge, Mrs. S. Parkman, Mrs. C. H. Dall, *Boston.*
Mrs. Henry Whitman, Miss A. W. May, H. Villard, *Boston.*
Nathan Allen, *Lowell.*
E. C. Guild, *Waltham.*
E. C. Wines, *New York.*
Dorman B. Eaton, *New York.*
E. Lloyd Howard, *Baltimore.*
Henry B. Baker, *Lansing, Mich.*
Z. R. Brockway, *Detroit, Mich.*
Sydney Myers *Chicago, Ill.*
Mrs. W. P. Lynde, *Milwaukee.*
D. W. Wilder, *Topeka, Kan.*

The above-named persons, with the Chairmen and Secretaries of the Five Departments, make up a Council or Executive Committee, which meets in Boston on the last Saturday of every month. The Department Committees are as follows: —

I. EDUCATION.

Samuel Eliot, *Boston, Chairman.*
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W. C. Collar, *Roxbury, Mass.*
D. B. Hagar, *Salem, Mass.*
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Prof. C. O. Thompson, *Worcester, Mass.*
H. F. Harrington, *New Bedford, Mass.*
A. G. Boyden, *Bridgewater, Mass.*
C. F. P. Bancroft, *Andover, Mass.*
Prof. L. Clarke Seelye, *Amherst, Mass.*
Edwin P. Seaver, L. R. Williston, *Cambridge, Mass.*
A. C. Perkins, *Exeter, N.H.*
Prof. W. F. Dimmock, *Quincy, Mass.*
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Miss Anna C. Brackett, *New York.*

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James Buel, *New York.*
David A. Wells, *Norwich, Conn.*
Prof. F. A. Walker, *New Haven.*

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Dr. Robert T. Davis, *Fall River, Mass.*
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V. JURISPRUDENCE.

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PHILADELPHIA BRANCH ASSOCIATION.

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Secretary and Treasurer, Benjamin Hayllar, 720 Locust Street.

DETROIT BRANCH ASSOCIATION.

OFFICERS FOR 1876.

President, C. I. Walker.
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OFFICERS FOR 1876.

President, W. T. Harris.

NEW HAVEN BRANCH ASSOCIATION.

OFFICERS FOR 1876.

President, Theodore D. Woolsey.

MEMBERS OF THE ASSOCIATION.

MAY 1, 1876.

[It is understood that all members of the Executive Committee are also members of the Association, whether their names appear on the list as Life Members, Annual Members, &c., or not. In copying the list for publication, in order to avoid the duplication of names, those of the Executive Committee do not also appear among the members. Possibly some names have been omitted of members who are not officers; if so the Secretary will thank any person sending him an omitted name, or the correction of an address. The names of Life Members who have died are not retained on the printed list.]

LIFE MEMBERS.

Agassiz, Mrs. Louis, Cambridge.
Angell, George T., 186 Washington St., Boston.
Baker, William E., 63 Chester Sq., Boston.
Barnard, James M., Hotel Pelham, Boston.
Barnard, Mrs. James M., Hotel Pelham, Boston.
Bigelow, E. B., 8 Commonwealth Ave., Boston.
Blatchford, J. S., 13 Exchange St., Boston.
Bradford, Gamaliel, Cambridge.
Brimmer, Martin, 47 Beacon St., Boston.
Chapman, Miss Mary G., La Grange House, Boston.
Chapman, Maria W., Boston.
Dike, Henry A., New York.
Dodge, William E., jun., 11 Cliff St., New York.
Earle, Edward, Worcester, Mass.
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Matile, George A., U. S. Patent Office, Washington, D.C.
May, Miss Abby W., 3 Exeter St., Boston.
Mudge, E. R., 118 Beacon St., Boston.
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Ware, William R., 2 Pemberton Sq., Boston.
Warren, S. D., 67 Mt. Vernon St., Boston.
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Amory, Copley, Somerset Club, Boston.
Amory, William, 60 State St., Boston.
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Anthony, Henry B., Providence, R.I.
Anthony, Henry T., 591 Broadway, New York.
Atkinson, Edward, 40 State St., Boston.
Atkinson, William P., Institute of Technology, Boston.
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Balch, F. V., 29 Court St., Boston.
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Binney, William, 72 Prospect St., Providence, R.I.
Bissinger, Philip, 13 John St., New York.
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Blaney, Henry, 47 Commonwealth Ave., Boston.
Blatchford, E. W., 375 No. La Salle St, Chicago, Ill.
Bliss, George, jun., 41 Chambers St., New York.
Bockus, C. E., Gold Room, Boston.
Bolles, Albert S., Norwich, Conn.
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Bowker, R. R., 34 Park Row, New York.
Brace, Charles L., 19 East 4th St., New York.
Bradford, Charles F., 1026 Shawmut Ave., Boston.
Brainerd, Cephas, New York.
Bright, J. B., Waltham, Mass.
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Brooks, Rev. Phillips, Hotel Kempton, Boston.
Brooks, Shepherd, 92 Beacon St., Boston.
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Cleveland, Mrs. H. R., Jamaica Plain, Mass.
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Curtis, Hon. Wm. E., 14 W. 20th St., New York.
Davis, James, 47 Kilby St., Boston.
Davis, Dr. R. T., Fall River, Mass.
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Denny, Henry G., 37 Court St., Boston.
Dimock, H. F., 80 West St., New York.
Doane, Rt. Rev. William C., 29 Elk Street, Albany, New York.
Dodge, Wm. E., 13 Cliff St., New York.
Draper, Joseph, M.D., Brattleboro', Vt.
Drew, Prof. William P., 516 3d St., Washington, D.C.
Dupee, James A., 19 Exchange Pl., Boston.
Earle, Mrs. Ann B., 40 Summer St., Worcester, Mass.
Earle, Pliny, M.D., Northampton, Mass.
Eaton, John, Bureau of Education, Washington, D.C.
Elliott, E. B., Treasury Department, Washington, D.C.
Ellis, Mrs. Grace, 2 Commonwealth Ave., Boston.
Ellis, John W., 27 Pine St., New York.
Escobar, Fernando, 30 West 54th St., New York.
Etter, S. M., Springfield, Ill.
Evans, Ellicott, Hamilton College, Clinton, N.Y.
Everitt, John, Davis Ave., Brookline, Mass.
Field, Dudley, 4 Pine St., New York.
Field, W. A., 5 Tremont St., Boston.
Flagg, Willard C., Moro, Ill.
Foote, Miss Mary B., 352 Harvard St., Cambridge, Mass.
Forbes, Robert B., Milton, Mass.
Ford, Gordon L., 97 Clark St., Brooklyn, N.Y.
Fretwell, John, jun., 182 Broadway, New York.
Frothingham, Rev. F., Lowell, Mass.
Frothingham, Rev. O. B., 50 West 36th St., New York.
Gallaudet, Edward M., Deaf-Mute College, Washington, D.C.
Garfield, J. A., Washington, D.C.
Garrison, Francis J., 125 Highland St., Roxbury.
Garrison, William Lloyd, 125 Highland St., Roxbury.
Garrison, William Lloyd, jun., 18 Matthews St., Boston.
George, W. S., Lansing, Mich.
Gibbs, Prof. Wolcott, 99 Mt. Vernon St., Boston.
Giles, F. W., Topeka, Kan.
Goddard, J. Warren, 461–467 Broadway, New York.
Goddard, Miss Matilda, 2 Florence St., Boston.
Greenough, W. W., 20 West St., Boston.
Grew, Henry S., 89 Beacon St., Boston.
Hale, George S., 39 Court St., Boston.
Hall, Miss M. L., 55 St. James St., Boston Highlands.
Hallowell, R. P., 139 Federal St., Boston.
Hammond, Henry B., 120 Broadway, New York.
Harris, Elisha, M.D., 58 Bible House, New York.
Hassler, Charles W., 7 Wall St., New York.
Hawley, Hon. Joseph R., Philadelphia, Penn.
Higginson, T. W., Newport, R.I.
Higginson, Waldo, 70 Devonshire St., Boston.
Hillard, George S., 14 Pemberton Sq., Boston.
Hinchman, Jonathan J., New York.
Hitchcock, Henry, 210 N. 3d St., St. Louis, Mo.

Holt, Henry, 25 Bond St., New York.
Homans, Sheppard, 197 Broadway, New York.
Hooper, Miss Alice S., 27 Commonwealth Ave., Boston.
Hooper, Mrs. Anna S., 27 Commonwealth Ave., Boston.
Horton, S. Dana, Pomeroy, O.
Hun, Thomas, M.D., Albany, N. Y.
Hunt, Richard M., 28 East 21st St., New York.
Hunt, T. Sterry, Institute Technology, Boston.
Hutchings, John, Lawrence, Kan.
Jackson, Miss Marian, 88 Marlboro' St., Boston.
Jacobi, A., 110 West 34th St., New York.
James, Mrs. John W., 119 Boylston St., Boston.
Jarvis, Edward, M.D., Dorchester, Mass.
Jenkins, J. Foster, M.D., Yonkers, N.Y.
Jennison, S., 186 Washington St., Boston.
Jewett, Josiah, Buffalo, N.Y.
Johnson, Miss A. E., Framingham, Mass.
Joy, Prof. Charles A., Columbia College, New York City.
Jüngst, W., Volksfreund Office, Cincinnati, O.
Kearney, John Watts, 658 Fourth St., Louisville, Ky.
Kelly, J. B., 244 State St., Albany, N.Y.
Kennard, M. P., 511 Washington St., Boston.
Kent, Prof. C. A., Detroit, Mich.
Kingsbury, F. J., Waterbury, Conn.
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Kittredge, George A., Tewksbury, Mass.
Krackowitzer, E., 16 West 12th St., New York.
Lawrence, Hon. A. A., 13 Chauncy St., Boston.
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Leach, Orlando, 142 and 144 Grand St., New York.
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Livermore, Rev., A. A., Meadville, Pa.
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Loring, C. W., 17 Pemberton Sq., Boston.
Low, A. A., 3 Burling Slip, New York.
Lyman, Arthur T., 17 Kingston St., Boston.
Lyman, Theodore, Boston.
Macomber, A. E., Toledo, O.
Marshall, Charles H., 38 Burling Slip, New York.
Mason, John J., M.D., 4 West 33d St., New York.
May, Rev. Samuel, Leicester, Mass.
McCurdy, Robert H., 10 East 14th St., New York.
Meads, Orlando, Albany, N.Y.
Means, William G., cor. Devonshire and Water Sts., Boston.
Merrin, William L., Newark, O.
Milburn, John George, 6 Lewis Block, Buffalo, N.Y.
Minturn, R. B., 78 South St., New York.
Mitchell, Alexander, Milwaukee, Wis.
Mitchell, Archibald, care Leeds & Co., N. Orleans, La.
Morgan, W. D., 26 Washington Square, New York.
Morton, Edwin, Boston.
Newton, R. Heber, 67 West 38th St., New York.
Nordhoff, Charles, Alpine, Bergen Co., N.J.
Nourse, B. F., 18 P. O. Sq., Boston.
Olcott, Thomas W., Albany, N.Y.
Olcott, Dudley, " "
Olmsted, Fred. Law, 209 W. 46th St., New York.
Paine, Robert T., jun., 16 Pemberton Square, Boston.
Parker, Leroy, Flint, Mich.
Parker, Willard, Detroit, Mich.
Parkman, Henry, 35 Court St., Boston.
Peabody, Charles A., 110 Broadway, New York.
Peaslee, E. R., M D., 29 Madison Ave., New York.
Pellew, Henry E., 18 West 33d St., New York.
Perkins, C. C., 2 Walnut St., Boston.
Perkins, Mrs. C. C., 2 Walnut St., Boston.
Phillips, Wendell, 26 Essex St., Boston.
Pickman, W. D., 15 Commonwealth Ave., Boston.
Pinkerton, Jno. J., West Chester, Pa.
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Porter, Charles H., M.D., Albany, N.Y.
Post H. C., Oelrichs & Co., New York.

Potter, Howard, 59 Wall St., New York.
Potter, E. R., Kingston, R.I.
Pruyn, John V. L., Albany, N.Y.
Putnam, Charles P., 63 Marlboro' St., Boston.
Putnam, James J., 6 Park Sq., Boston.
Quincy, Hon. Josiah, 4 Park St., "
Ramsay, J. H., Albany, N.Y.
Rice, Lewis, American House, Boston.
Richards, Miss Caroline, 33 Hollis St., Boston.
Riddle, W. Q., 33 Wall St., New York.
Robbins, George A., P. O. Box 947, New York.
Rogers, Charles H., 80 Wall St., New York.
Ropes, John C., 4 Pemberton Sq., Boston.
Ropes, Joseph S., 60 State St., Boston.
Rotch, Miss Joanna, Milton Hill, Milton, Mass.
Ruggles, S. P., 1209 Washington St., Boston.
Runkle, Prof. J. D., Inst. Technology, Boston.
Ryder, N. C., Dubuque, Io.
Salisbury, Stephen, Worcester, Mass.
Sands, Mahlon, 130 William St., New York.
Sawyer, James D., Buffalo, N.Y.
Schmidt, L. W., 24 Barclay St., New York.
Schuyler, Miss Louisa Lee, 19 W. 31st St., New York.
Schwab, Gustavus, 60 Broad St., New York.
Scoville, D. C., Bay City, Mich.
Sewall, S. E., 5 Pemberton Sq., Boston.
Shaler, Prof. N. S., Newport, Ky.
Shattuck, George C., M.D., 6 Newbury St., Boston.
Shattuck, George O., 35 Court St., Boston.
Shimmin, Charles F., 5 Pemberton Sq., Boston.
Skinner, B. D., H. C. Williams & Co., New York.
Slocum, Jane M., Union Springs, N.Y.
Snow, Edwin M., M.D., Providence, R.I.
Stevenson, Robert H., 8 W. Cedar St., Boston.
Stockbridge, Henry, 55 St. Paul St., Baltimore, M.D.
Stearns, John H., M.D., Washington, D.C.
Stokes, James, jun., 104 John St., New York.
Stone, Dr. J. A. B., Kalamazoo, Mich.
Stone, L. R., M.D., Newton, Mass.
Stowell, C. F., Rochester, N.Y.
Sturgis, James, 34 Sears Building, Boston.
Sturgis, John H., 7 Pemberton Sq., Boston.
Sullivan, Richard, 77 State St., Boston.
Summerfield, Marcus, Lawrence, Kan.
Thayer, James B., Cambridge, Mass.
Thrasher, J. S., Galveston, Tex.
Thurber, F. B., Box 3895, New York.
Torrey, H. W., 20 Oxford St., Cambridge, Mass.
Tousey, Sinclair, 119 Nassau St., New York.
Trumbull, Rev. H. C., Hartford, Conn.
Urbino, S. R., West Newton, Mass.
Walker, F. A., New Haven, Conn.
Walker, George, 25 West 32d St., New York.
Ware, Charles E., M.D., 41 Brimmer St., Boston.
Watson, Prof. Wm., Inst. Technology, Boston.
Wayland, C. N., Waterbury, Conn.
Webber, Wm. L., E. Saginaw, Mich.
White, Andrew D., care Chas. Tucker, Syracuse, N.Y.
White, Horace, Tribune office, Chicago, Ill.
Whitmore, C. O., 17 Central St., Boston.
Wilkinson, Alfred, Syracuse, N.Y.
Williams, Chauncey P., Albany, N.Y.
Wines, Rev. F. H., Springfield, Ill.
Winthrop, Robert C., 90 Marlboro' St., Boston.
Witthaus, R. A., 34 W. 35th St., New York.
Wolcott, J. Huntington, 8 Pemberton Sq., Boston.
Wolcott, Mrs. Harriet F., 238 Beacon St., Boston.
Wood, Rev. Horatio, Lowell, Mass.
Wright, Elizur, Boston.
Young, Charles L., 71 Mt. Vernon St., Boston.
Young, Edward J., Bureau of Statistics Washington, D.C.

OFFICERS OF BRANCH ASSOCIATIONS.

THE following is a more complete list than that given on p. 185, of the officers of the Associations at Philadelphia and Detroit for 1876.

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Secretary and Treasurer.

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Department of Finance, C. M. Davison, *Chairman.*
Department of Jurisprudence, C. A. Kent, *Chairman.*
Department of Social Economy, Rev. John W. Brown, *Chairman.*

MEETINGS

OF THE

AMERICAN SOCIAL SCIENCE ASSOCIATION

IN 1876.

A CONFERENCE, to which all members of this and of kindred associations are invited, will open in Philadelphia, at the College of Physicians, on Wednesday, May 31, 1876, and continue for three days. The first session will commence at eleven, A.M., May 31, Henry C. Lea, Esq., of Philadelphia, presiding; and reports will then be presented by F. B. Sanborn, General Secretary, by Dr. Elisha Harris, and others, which will be generally debated. At three, P.M., Dr. John H. Packard of Philadelphia will read a paper on "*The Training of Nurses.*" At five, P.M., a paper will be read by Dr. Edward C. Mann of New York, on "*State Medicine in its Relations to Intemperance and the Inebriate.*" In the evening of Wednesday, papers will be read and discussed by gentlemen of Philadelphia, on "*Building Associations and Homes for the People in Philadelphia,*" which will be fully debated.

On Thursday, June 1, at ten, A.M., Dorman B. Eaton, Esq., of New York, will give an address on "*The Utility and the Best Method of Organized Action for Improving Municipal Government;*" at twelve o'clock, Lorin Blodgett, Esq., of Philadelphia, will read a paper on "*The Administration and Evasion of Customs Laws;*" and at three, P.M., Prof. Thomas C. Archer of England will read a paper on "*International Exhibitions.*" Thursday evening will be devoted to a social reunion. On Friday, June 2, the forenoon session will be given to general conference and debate upon subjects to be announced hereafter; and this will be continued in the afternoon, if necessary.

The yearly General Meeting of the Association will take place at Saratoga, commencing Sept. 4, 1876, and continuing five days. The President of the Association, DAVID A. WELLS, will preside. A Conference of Charities will be held in connection with the Saratoga meeting, commencing Sept. 5, and continuing three days, at which Gov. Tilden of New York is expected to preside. More definite announcements concerning these meetings will be made at the Philadelphia Conference.

For the Committee of Arrangements,

F. B. SANBORN, *General Secretary.*

5 PEMBERTON SQUARE, BOSTON,
April 29, 1876.

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CONTAINING THE

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Secretary of the American Social Science Association,

5 PEMBERTON SQUARE, BOSTON.

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PREFACE.

The *Journal of Social Science* has been irregular in its publication ever since it began in 1869; but in the nine years, nine successive numbers have appeared, besides three Extra Numbers, containing the Proceedings of the three Conferences of Charities,—at Detroit in May, 1875, and at Saratoga in September, 1876, and September, 1877. Hereafter it is the hope of the Editor to publish it regularly, and more frequently. This depends mainly upon the income of the Association from membership fees and other sources, from which the expenses of publication are paid.

In consequence of the financial depression in the country since 1874, this income has been too small to admit of frequent publication. To meet that and other necessary expenses, it has been necessary to rely upon sources which may be called extraordinary, and which may fail us at any time. The Association has no funded property; its *regular* income is composed chiefly of annual payments from members, which now amount to less than $1,800 *per annum*. The cost of publishing three numbers of the Journal (about 600 pages 8vo) is $1,000; the salary of a Secretary, office-rent, clerk-hire, expense of annual meetings, and incidentals amount to $2,000 more, in round numbers, or a total of $3,000. The Association has been in continued operation since 1865, and it is thought that the time has now come when it may confidently appeal to the general interest felt in Social Science throughout the country, for the purpose of establishing its finances upon a solid basis, by enlarging the list of members to 700 or 1,000. It is believed that an institution supported in this way, and relying on a widespread popular feeling of interest, will not only stand firmer, but will accomplish its educational object far better than if (as hitherto) it were supported by a few subscribers.

Membership is obtained by the payment of the annual sum of five dollars. This confers the right to take part in business meetings of the Association, and to vote in elections of officers, and entitles him to receive its publications free of expense. The publications consist chiefly of the *Journal of Social Science*, which includes, more especially, the proceedings and papers of the General Meetings. Two numbers a year can be promised, upon the basis of 700 members,

and matter to fill a third is always ready to hand if funds can be supplied to publish it.

The papers on Legal Education, which were announced for publication a year ago, have been delayed on account of the illness of the Editor, Prof. W. G. Hammond, and from other causes. To those papers on this subject which were read at Saratoga, in 1876, have now been added a few read in 1877, and it is expected that the whole will soon be published as Number X. of the *Journal of Social Science*. The present Number contains most of the papers on economical subjects which were read at the General Meeting in Saratoga, September, 1877, —but the opening Address of President Wells has been withheld for revision. A brief Introduction gives a list of the papers and debates at the General Meetings of 1876 and of 1877; and an Appendix furnishes a list of the Officers and Members of the American Social Science Association, and a copy of its Constitution.

Previous numbers of the *Journal* (except Nos. I. and IV., which are out of print) may be obtained of the Publishers, or of the Secretary of the Association, who also can furnish a few copies of the *Proceedings* of the Conferences of Charities of 1874–5–6–7. Special pamphlets published by the Association may also be ordered of the Publishers, or the Secretary.

No. 5 Pemberton Square, Boston, January 10, 1878.

TRANSACTIONS

OF THE

AMERICAN SOCIAL SCIENCE ASSOCIATION

DURING 1876 AND 1877.

THE GENERAL MEETING OF 1876.

It has been the custom of the American Social Science Association to hold two meetings in a year, besides department meetings. The Annual Meeting, by custom, is held in Boston on the second Wednesday in January. It is principally a meeting for business, — the election of officers, hearing of reports, etc., — but a few general papers are read. The General Meetings of the Association for papers and discussions are held in different cities from year to year; sometimes in the spring, and sometimes in the autumn. That for 1873 was held in Boston (May 13–15); that for 1874, in New York (May 19–23); that for 1875, at Detroit; and those for 1876 and 1877, at Saratoga. The first General Meeting at Saratoga opened on Tuesday evening, September 5, 1876, at 7.30 P. M.; and afterward, on the three following days, the general sessions met twice, and sometimes thrice, a day, continuing until 10 P. M., September 8, 1876, at which hour the sessions finally closed. The Conference of the Boards of Public Charities began at 3 P. M., on Tuesday, the fifth of September, and continued through Wednesday and Thursday, but with no evening sessions. The departments of Health and Education held joint sessions on Friday. During the whole meeting, the persons who read papers or joined in debate were nearly a hundred in all. There were special sessions to consider questions of education and jurisprudence; the whole number of separate sessions, general and special, being twenty-two. A full report of all that was read and said would fill more than eight hundred pages of our Journal. The Proceedings of the Conference of Charities, as printed in December, 1876, cover nearly two hundred pages. The papers on Legal Education will be given in the tenth number of the *Journal of Social Science*. The whole list of papers and debates, after the opening address by Gov. TILDEN in the Conference of Charities, is as follows: —

Tuesday, September 5, 1876.

1. An Address by the President of the Association, DAVID A. WELLS, Esq., of Connecticut.

Wednesday, September 6.

I. — THE GENERAL SESSION.

2. Annual Report of the Secretary, Mr. F. B. SANBORN.*
3. A Paper by W. W. MCFARLAND, Esq., of New York, on *The Progress and Present State of Representative Democracy in the United States.*
4. A Paper by DANIEL L. HARRIS, Esq., of Springfield, Mass., on *Municipal Extravagance.**
5. Address by GEORGE WALKER, Esq., of New York, on *The Silver Question.**
6. A Paper by HORACE WHITE, Esq., of Chicago, on *The Silver Question.**
7. A Paper by GEORGE T. ANGELL, Esq., of Boston, on *The Prevention of Crime.**

II. — SECTIONAL MEETING OF THE DEPARTMENT OF JURISPRUDENCE.

8. Remarks by Prof. W. G. HAMMOND, on taking the chair.
9. A Paper by L. L. DELAFIELD, Esq., of New York, on *The Conditions of Admission to the Bar.*
10. A Paper by GEORGE A. MATILE, Esq., on *Certain Proposed Changes in American Law Schools.*
11. An Address by DORMAN B. EATON, Esq., of New York, on *An Elective Judiciary.*

III. — THE CONFERENCE OF CHARITIES.

12. Reports from the States, and from Delegates representing Municipal and Private Charities.
13. A Report from the Standing Committee, on *Insanity*, covering papers by Dr. NATHAN ALLEN, on *Treatment of the Insane*, Dr. H. B. WILBUR of Syracuse, on *Supervision of the Insane*, Dr. BODINE, and others.*

14, 15. Reports on *Public Buildings for the Dependent Classes*, by F. H. WINES of Illinois and FRANCIS WELLS of Pennsylvania.*

Thursday, September 7.

I. — THE GENERAL SESSION.

16, 17. Reports on *Cottage Gardens*, and *The Cotton Industry of Fall River*, by ELIZUR WRIGHT, Esq., and F. B. SANBORN, Esq.

18. A Paper by Edward Atkinson, Esq., of Boston, on *The Relations of Capital to Annual Production and Subsistence.*
19. A Paper by H. R. Hayden, Esq., of Hartford, on *Life Insurance as a Social Force.**
20. A Paper by B. F. Nourse, Esq., of Boston, on *The Relation of Currency to Prices.**
21. A Paper by Charles Nordhoff, Esq., of New York, on *The Industrial and Social Condition of the South*, followed by a general debate.
22. Communications and a debate on *Chinese Immigration to the Pacific States.*

II. — Sectional Meeting of the Department of Jurisprudence.

23. A Paper by Prof. T. W. Dwight of New York, on *The Study of Jurisprudence in the United States.*
24. A Paper by Prof. Franz von Holtzendorff, on *The Study of Political Science and Jurisprudence in Europe.*

III. — The Conference of Charities.

25. A Report on *Dependent and Delinquent Children*, by Charles L. Brace, Esq., of New York, followed by a debate.*
26. A Report on *Medical Charities and Outdoor Relief*, by Dr. Diller Luther of Pennsylvania, followed by communications and a debate.*
27. Special Reports on *National Legislation for the Protection of Immigrants and the Prevention of Pauperism*, by Mr. F. B. Sanborn of Massachusetts and Dr. M. B. Anderson of Rochester, N. Y., followed by a debate.*

Friday, September 8.

I. — The General Session.

28. A Paper by Hon. E. M. Haines of Illinois, on *Township Organizations in the Newer States.**
29. A Paper by W. Juengst, Esq., of Cincinnati, on *The Social Task of the United States in its Second Century.*
30. A Paper by Prof. William Watson of Boston, on *Technical Education in Europe and America.*
31. A Paper by G. Bradford, Esq., of Boston, on *The Civil Service Question.**
32. A Paper by Prof. W. G. Sumner of New Haven, on *The Commercial Crisis of* 1819.

33. A Paper by Thomas Balch, Esq., of Philadelphia, on *The Crédit Foncier of France.*
34. A Paper on *Railroad Bonds*, by C. W. Hassler of New York, followed by debate.*

II. — Sectional Meeting of the Department of Health.

35. A Report upon *The Health of Schools*, by Dr. D. F. Lincoln of Boston.
36. Papers on *Diseases of the Eye and Ear in Schools.*
37. Papers by Dr. Newell of Rhode Island and Dr. J. M. Gregory of Illinois, on *The Half-time System.*
38. A Debate on *The Prevention of Contagious Diseases among School Children.*
39. A Paper on *Sanitary Requirements in School Architecture*, by Dr. Lincoln.
40. A Paper on *Alcohol as an Article of Diet*, by Prof. R. T. Edes of Boston.

III. — Sectional Meeting of the Department of Jurisprudence.

41. A Paper by Prof. W. G. Hammond of Iowa City, followed by a debate.

The Papers on *Legal Education* and kindred subjects, which will appear in No. X. of the *Journal of Social Science*, are those numbered 8, 9, 10, 11, 23, 24, and 41, in the above list. Nos. 12, 13, 14, 15, 25, 26, and 27, are printed in the *Proceedings of the Conference of Charities for 1876.* The papers marked * have been printed in full in newspapers, magazines or pamphlets, but no collection of them has been made by the Association, except those just mentioned as printed for the Conference of Charities in December, 1876. The debates of the General Meeting of 1876 were not reported, except as they appear in the Proceedings of the Conference.

THE GENERAL MEETING OF 1877.

In 1877, as in the preceding year, the General Meeting of the Association and the Conference of Charities were convened at the same time and place, in Saratoga, N. Y. The sessions opened on Tuesday evening, September 4, 1877, and proceeded in the following order, until they finally closed on the evening of September 7.

Tuesday, September 4, 1877.

1. Annual Address by the President of the Association, David A. Wells, Esq., of Connecticut. Subject: *The Relation of Economic Laws to Public and Private Morality.*

Wednesday, September 5.

I. — The General Session.

2. Annual Report of the Secretary, Mr. F. B. Sanborn.*
3. A Paper by Prof. W. Stanley Jevons of London, Eng., on *The Silver Question.**
4. A Paper by B. F. Nourse, Esq., of Boston, on *The Silver Question.**
5. A Paper by John P. Townsend, Esq., of New York, on *Savings Banks.**
6. A Paper by Gamaliel Bradford, Esq., of Boston, on *The Prospect of Resumption.*
7. A Paper by Enoch Ensley, Esq., of Memphis, on *The Philosophy of Money.*
8. A Paper by William Minot, Jr., Esq., of Boston, on *Local Taxation.**
9. A Paper by Prof. N. C. Frederiksen of Copenhagen, on *Principles of Taxation.*

II. — Sectional Meeting of the Department of Jurisprudence.

10. A Paper by Prof. W. P. Wells of Michigan University, on *The Work of American Law Schools and its Hindrances.*

III. — The Conference of Charities.

11. Opening Address by Hon. J. V. L. Pruyn of Albany, followed by Reports from the States and from Delegates representing Municipal and Private Charities.*
12. A Report from the Standing Committee on *Insanity*, by John B. Chapin, M. D., of the Willard Asylum, N. Y., followed by a discussion.*
13. A Report from the Standing Committee on *Statistics*, by Mr. F. B. Sanborn of Concord, Mass.*
14. A Report on *Medical Charities*, by Theodore Roosevelt, Esq., of New York.*
15. A Report on *Outdoor Relief*, by Prof. Francis Wayland of Yale College.*
16. A Paper on *Provident Dispensaries*, by Charles Barnard, Esq., of New York.

Thursday, September 6.

I. — The General Session.

17. A Report on *Registration in the United States*, by Elisha Harris, M. D., of New York.

18. A Paper by Hon. C. D. Wright of Reading, Mass., on *The Massachusetts Census of 1875 and its Lessons.**
19. A Paper by Nathan Allen, M. D., of Lowell, Mass., on *Changes of Population in New England.**
20. A Paper by W. L. Trenholm, Esq., of Charleston, S. C., on *The Industrial and Social Aspects of the Southern Question.**
21. A Paper by Hon. J. Randolph Tucker of Virginia, on *The Relations of the United States to each other, as Modified by the War and the Constitutional Amendments.*
22. A Paper by Gen. T. M. Logan of Richmond, Va., on *Education in the Southern States.**
23. A Paper by Dexter A. Hawkins, Esq., of New York, on *The Southern Question*, followed by a discussion.

II. — The Conference of Charities.

24. A Report on *Dependent and Delinquent Children*, by W. T. Letchworth, Esq., of Buffalo, N. Y., followed by a debate.*
25. A Paper by R. L. Dugdale, Esq., of New York, on *Hereditary Transmission of Vice and Pauperism.**
26. A Report and Papers on *Tramps*, by Rev. E. E. Hale of Boston and Prof. Francis Wayland of Yale College and others, followed by a debate.*
27. A Report on *Public Buildings for the Dependent Classes*, by H. B. Wilbur, M. D., of Syracuse, N. Y.*

III. — Sectional Meeting of the Department of Health.

28. The Secretary's Report, containing *Résumé of Progress.*
29. A Paper by Dr. E. G. Loring, "*Is the Intellectual World Becoming Near-sighted?*" *
30. Papers by Dr. Frederick Winsor, A. C. Martin, and F. Tudor, on *The Ventilation and Warming of Schools*, followed by a debate.*
31. A Report by Mrs. A. C. Martin of Boston, on *Injury to the Health of Girls from Imperfect Early Training.**

IV.—Sectional Meeting of the Department of Jurisprudence.

32. A Paper by Prof. S. E. Baldwin of Yale College, on *A Graduate Course at Law Schools.*
33. A Special Session, to hear the Letters of Chancellor Kent to Edward Livingston in 1826, read by Prof. Carlton Hunt of New Orleans, La.

Friday, September 7.

I. — The General Session.

34. A Paper by Hamilton A. Hill, Esq., of Boston, on *The Navigation Laws of Great Britain and of the United States.**

35, 36. Papers by Horace White, Esq., and J. S. Moore, Esq., of New York, on *The Tariff Question.**

37. A Paper by Henry D. Hyde, Esq., of Boston, on *Custom-house Forms.**

38, 39. Papers by Daniel L. Harris, Esq., and Samuel Bowles, Esq., of Springfield, Mass., on *Municipal Government*, and *Municipal Economy.**

40. A Debate on *The Labor Question*, opened by Charles Nordhoff, Esq., of New York.

41. A Paper by Hon. E. R. Meade of New York, followed by a debate, on *The Chinese Question.**

II. — Health Department Meeting.

42. A Paper by Dr. D. F. Lincoln of Boston, on *The Half-time System in Education.**

A Debate on the general subject of *Health and Study.*

III. — Special Session of the Social Economy Department.

43. A Report on *Economy in Building*, by Messrs. John Ayres, R. T. Paine, Jr., and F. B. Sanborn.

44. A Report on *Home Comforts and Amusements at Small Cost*, by Rev. E. C. Guild of Waltham, Mass.*

45. A Paper by Elizur Wright, Esq., of Boston, on *Bird Culture in its Relation to Cottage Homes.**

46. A Paper by Edward T. Potter, Esq., of New York, on *Tenement-house Areas in New York.*

IV. — The Jurisprudence Department.

47, 48. A Special Session on International Law, at which was read a Paper on *Extradition*, by Prof. Sheldon Amos of London, and a Paper on an *International Code*, by A. P. Sprague, Esq., of New York.

It will thus be seen that the whole number of Addresses, Papers, Reports, etc., was 48, or somewhat greater than at the first Saratoga meeting. The Papers marked * have been printed in some form. Several matters of business came before the Association at its last General Meeting. The business of the Conference of Charities was

reported in its Proceedings, lately published, and supplied to members of the Association. The resolutions there entered (on pages 100–101) concerning the Prison Congress and Dr. WINES, were also passed by the Association in its General Session on the 7th of September. On the 6th of September, in the same session, Prof. F. A. WALKER of Yale College presiding, the following resolutions, offered by Dr. HARRIS of New York, after the reading of his Paper, were adopted, and the proper committee was appointed, consisting of Dr. ELISHA HARRIS of New York and Dr. HENRY B. BAKER of Lansing, Michigan :—

Resolved, That a committee representing the American Social Science Association, be appointed to confer with the Superintendent of the Ninth National Census, and the representatives who may, during the present year, be appointed by the American Public Health Association, the State Boards of Health, the Medical Department of the United States Army and Navy, and the Marine Hospital Service, and other expert vital statisticians whom the said representatives shall call into their council, with reference to devising and procuring a thoroughly efficient and uniform system of registration of births, marriages, deaths, and causes of mortality, in all the States of the Union.

Resolved, That the Registrar-General of England, Dr. William Farr of his office, Dr. Engel of the officers at the head of vital registration, which he directs in the States of Germany, Professor Bencke of Marburg, and Dr. Sander of the German Association of Public Health, can be consulted in regard to this work.

In the meeting of the Jurisprudence Department, on the 7th of September, upon motion of Prof. WELLS of Michigan University, it was voted that the question of an International Code be formally taken up at the next sectional meeting of the Department, and that the Chair appoint a committee of three to take this into consideration, and in conjunction with the Secretaries of the Department and of the Association, to so arrange the programme for 1878. The Chair appointed Prof. WELLS, Prof. POMEROY of the Rochester University, and Prof. BALDWIN of Yale College, as this committee.

The attendance at the Saratoga meeting of 1877 was larger than in 1876, and the Papers read attracted more attention throughout the country, than those of any preceding meeting of the Association. Many of them have been separately printed, for sale or distribution, by the writers, and some have had a very extensive circulation in the newspapers. The present number of the *Journal of Social Science* contains several of these, which are here collected in a permanent form.

THE ANNUAL MEETINGS OF 1877 AND 1878.

Previous to the Saratoga meeting of 1876, a two days' conference had been held at Philadelphia (May 31, June 1, 1876), in connection

with the Branch Association of that city, which has published in the *Penn Monthly* the most important Papers read there. At the Annual Meeting in Boston, January 10, 1877, a Paper on the Silver Question, by the late Thomas Balch of Philadelphia, was read and debated, which has since been published by the Philadelphia Association. Another Paper was read at this meeting, the Report of a Committee appointed in 1876, to consider the practicability of establishing School Shops in the city of Boston, according to the plan of Mr. S. P. Ruggles of Boston, for educating school children in the mechanical arts. This Report was afterwards printed and distributed by Mr. Ruggles. At the Annual Meeting of 1878 (January 9), the same topic of Industrial Education was taken up again and debated, after the reading of a Paper by Prof. C. O. Thompson of Worcester, on "A Place in Education for the Industrial Arts." At this meeting, Mr. T. C. Amory of Boston again presented the plan of Mr. Ruggles, with the arguments for it, and the course of Industrial Training at the Worcester Free Institute was described and explained. Rev. Dr. Bartol and Mr. John Newell of Boston spoke in recommendation of the plan of Mr. Ruggles, who also said a few words in explanation of it. A Paper by Robert P. Porter of Chicago, on "Municipal Debts," was read and debated; a brief Report on "Homes for the People" was read, and the subject of "Savings Banks" was debated, at the request of Mr. Townsend of New York, whose Paper, read at Saratoga, is printed on pages 44–65 of the present *Journal*.

The Treasurer's Report for the calendar year 1877 showed receipts amounting to $2,830.60, of which $1,590 was from annual membership fees, $300 from life memberships, and $820 from donations. The expenses during the year were $2,697.27, of which $215.04 was for the deficit of 1876, $1,100 for the Secretary's salary, $313 for clerk-hire, and $350 for office-rent. The balance on hand, January 1, 1878, was $133.33. The present number of members is as follows: Honorary Members, 11; Corresponding Members, 31; Life Members, 60; Annual Members, 387. All officers of the Association are annual members, *ex officio*, unless they are Life Members.

The list of officers chosen at the Annual Meeting of 1878 will be found in the Appendix. After the reading of a letter from Rev. Dr. E. C. Wines, United States Prison Commissioner, in regard to the Prison Congress at Stockholm, Sweden, August 20, 1878, it was voted that Thomas Wentworth Higginson of Rhode Island and F. H. Wines of Illinois be delegates from this Association to the Congress.

The Late Hon. Emory Washburn.

The committee appointed by the American Social Science Association to give expression to its sense of loss occasioned by the death of Hon. Emory Washburn, addressed a letter, enclosing the following resolutions, to Mrs. Washburn, on the 9th of April, 1877 :—

Resolved, That by the death of Hon. Emory Washburn, the American Social Science Association has lost one of its oldest and most valued members, who from its very beginning has manifested an active interest in its work, and has himself added greatly to the value of its discussions and publications, by the share he has taken and the contributions he has made, especially in his own chosen department of Jurisprudence.

Resolved, That the cause of legal education and the science of jurisprudence, whether in its relation to the laws of States or to the general law of nations, was greatly promoted in this country by the diligent, comprehensive, and philosophical researches of Professor Washburn, who did not permit the period of advancing age to narrow his studies or diminish his activity in ameliorating the statutes and institutions of the law.

Resolved, That among his varied and manifold services in more conspicuous paths, which justly endeared him to his fellow-citizens, these labors in connection with our Association can never be forgotten by us. From its inception, he was its zealous, steadfast, and untiring friend and supporter; he believed in its objects, and did his best to promote them. If his yearning for the greater enlightenment, prosperity, and welfare of mankind was tempered by prudent and practical considerations, his philosophic mind still courageously grappled with whatever untried and beyond promised to advance civilization. Eager for truth and unbiassed by preconceived opinion, he found congenial fellowship and freedom in our dispassionate discussion of social questions; and here his high culture, noble aspirations, and sound sense, coupled with emotions warm and genuine, and a disposition peculiarly winning, inspired conviction and conciliated affection. If the true aim of social science be to elevate humanity, within its prescribed limitations and conditions, no one better than he embodied its high ideal. Whether as statesman or philanthropist,—in his literary or historical achievements,—in official position or in the amenities of social intercourse,—whatever we all admit to be best, whether in judgment or taste, in fidelity to obligation and duty, in sincerity without assumption, in deference for other men,—all this we recognized in him. Though our Commonwealth has often had reason to be proud of her children, yet the memory of few who have served her in high place better deserves to be cherished than that of our late associate.

SOCIAL SCIENCE IN THEORY AND IN PRACTICE.

A Report read at the General Meeting of the American Social Science Association at Saratoga, September 5, 1877.

BY F. B. SANBORN, GENERAL SECRETARY OF THE ASSOCIATION.

It has been considered one of the duties of my office, unless the President in his goodness relieves the Secretary of the responsibility, to define each year what Social Science is. This task has several times fallen to my lot; and then I have understood what St. Augustine meant when he said: "What Time is—if no asks me—I know; if one puts me the question—I do not know." It is not so difficult to frame in the mind a conception of that modern entity, vast and vague, which for lack of a good name we call Social Science; but it is not so easy to set that conception forth in a few words. Perhaps it can best be reached by an illustration which shall be a familiar anecdote.

When, in the early days of the great French revolution, there was much question about the exact *status* of that numerous but hitherto powerless body of men, the so-called "Third estate," a witty pamphleteer belonging in name to the second estate, for he was a clergyman, startled all Paris by this short catechism: "What is the third estate? Everything. What has it hitherto been? Nothing. What does it now aspire to be? Something." And for a brief period, after the *noblesse* and the clergy went down in the storm of revolution, and before that terrible fourth estate—the people themselves—snatched the power, the third estate, with Mirabeau for its leader, did become "everything" in France. Then it went down in its turn, and ceased for long years to be even "something." In the great intellectual movement of mankind from one age and phase of civilization to another, there are no such revolutions, fierce and sudden, as those which overthrow governments and raise or depress nations. The course of civilization is more gradual,—yet there are successive eras, in which the dominating force and the prevailing activity seem to change as completely, if not so suddenly, as the French nation passes from one form of government to another. The empire of theology, which was at its height just before our ancestors colonized America, has given way within the past three centuries to the republic of science, under which we are now living. And among the classes or estates of science, that which we now call Social Science, which is in fact the most important, but has been the most neglected, is fast coming forward to supremacy. More than any other branch of human

knowledge or sphere of human activity, it may claim to be the overpowering third estate described by the Abbé Siéyès, which *is* something, has been nothing, and will soon be everything. And while we are met here together for a few days, to take our part in promoting its future triumph, we may very fitly devote a few moments to the insignificance of its past history.

One of the most learned of our corresponding members, Prof. Gabba of Pisa in Italy,—in an elaborate essay on the "Present State and Tendency of Social Science," which he contributed to our last year's meeting at Saratoga, but which came too late for use there,—has traced with much ingenuity and erudition the course of science in general, from the time of Aristotle to that of Darwin. Prof. Gabba points out that the physical sciences and practical ethics and jurisprudence long preceded even psychology and speculative ethics as objects of human research. Then came the great epoch of the Platonic philosophy, in which the genius of Socrates, Plato, and Aristotle gave to psychology and ethics a position of equal rank with the study of outward nature. But social science profited little by them, or by the great jurists of Rome; although, as we now look back upon those ancient philosophers and those founders of the civil law, we see that much of their work fell within the circle lately termed the social sciences. But the Greek ethics were too dialectical, and the Roman jurisprudence was rather an art than a science. Yet it was at least the germ of a science, and added the fourth branch—natural law—to the three existing Greek sciences of psychology, ethics, and politics. These four sciences, in their speculative form, and mingled largely with theology, occupied the mind of Europe and Western Asia for many centuries, during which Christianity, that cherishing seed-bed and nursery of social science, was introduced, and planted itself firmly among the people.

It is not until the early part of the eighteenth century that we begin to discern the elements of what is now known as Social Science, separating themselves by a process akin to crystallization, and, like that, giving birth to fantastic forms, regular and irregular,—from the thick and turbid solution in which politics, practical ethics, economics, etc., found themselves between the period of Hobbes and that of Comte. The philosopher of most insight in this direction during the early part of that period was Giovanni Battista Vico, a Neapolitan, born in 1668, and dying in 1744. The philosopher of the most acute and useful practical discernment, for our purposes, was the Scotchman, Adam Smith, of whom our President has spoken so fully that I need only allude to him. Between Vico and Smith came those ingen-

ious men, the French Economists or Physiocrats, from whom, especially from Quesnay and Turgot, Smith borrowed many hints.

Vico naturally receives from his countryman, Prof. Gabba, more attention than Americans or Englishmen usually have bestowed on him. He was indeed a remarkable man, anticipating by many years the conclusions of later philosophers. His "Principles of a New Science," published in 1725, when Adam Smith was but two years old, show that he clearly grasped the conception which is now known as Social Science. He conceived it, naturally, in its more speculative form, and may be called, as he has been, the founder of the philosophy of history. Prof. Gabba says of him: "He might have inaugurated a new era in the study of Social Science, had his teachings fallen upon a country and an epoch less frivolous and less difficult to move. The 'New Science' of Vico is this same new science of our own day, which considers human society as an organic whole, and studies its development and its different aspects through long periods of time. The necessary change and progress in human and social condition were as clearly felt by Vico as by our modern philosophers. His method, positive and concrete, no less than speculative, is for that reason better adapted to moral science, and more fertile than the positivism of our time, which claims to treat that science in the same manner as physics and natural history. His conviction was more positive than that of modern writers, and no recent work equals the power of his best pages. Still Vico did not, in fact, inaugurate the science of man and of society,—though this was not his fault. Twice he expounded his 'New Science,'—yet it remained unknown for more than a century."

In other countries than Italy, and by a different order of men, some portions of this new science were propagated. In political economy, for the first time, the interests and the activity of individuals were represented as closely allied to the general life of the community. The so-called physiocrats of France, with Quesnay at their head, and Turgot for their most illustrious disciple, were deeply imbued with this sentiment,—which is in fact, as Mr. Wells has said, the economic aspect of Christianity. Then came Adam Smith, with his patient and comprehensive genius, and the foundations of social science were laid by him, deeply bedded in the mortar of commercial interests.

This was a hundred years ago. Midway of the century that has intervened there arose the ambitious and methodical system of Comte, a medley of great truths and great errors, but aiming to methodize and co-ordinate all that can be known of human life in society, and, in fact, contributing largely to the firm establishment of the new science,—which, however, has already outgrown the limits assigned

for it by the French thinker. What he sought to bind in a sheaf, so as to be grasped by the single hand, has again fallen apart, and spreads itself luxuriantly on every side. We have undertaken to gather up a few handfuls here and there, which we hope may be found of worth, either for use or for suggestion. Our list of addresses, papers, reports, and debates, though far less extended than that of the coming Social Science Congress, at Aberdeen, two weeks hence (September 19–26), is yet sufficiently long and various to remind one of that fabulous challenge given by the Admirable Crichton to the university of Paris three hundred years ago, when the confident young Scot announced that he was ready to meet any and all learned men in public disputation,—"to answer what should be propounded to him concerning any science, liberal art, discipline, or faculty, practical or theoretical, not excluding the theological or jurisprudential habits, if only grounded on the testimonies of God and man; and that in any of these twelve languages,—Hebrew, Syriac, Arabic, Greek, Latin, Spanish, French, Italian, English, Dutch, Flemish, and Slavonian, in either prose or verse, at the discretion of the disputant."

It is to be feared that this ambitious youth was quite as eager to display his own learning, as to benefit his fellow-men. Such is not the aim of what we call Social Science, which hastens to make a practical use of whatever knowledge may have been gained; and is prompt to apply that test of Cassius—*Cui bono fuerit?*—"Whom will it benefit?"—to all theories and discoveries. This is a searching test, and to satisfy it we must show two things,—first, that there is something in our social condition which can be improved; and second, that we have proof drawn from experience that what we propose is capable of effecting that improvement. From what I have seen of the papers to be read at these sessions, I conclude there will be no lack of evidence on the first head. Indeed, one sometimes fancies that he perceives an inclination to paint the ills we have in colors quite as gloomy as they deserve, in order that we may fly the more readily to the glowing alternative set before us. An impression of this sort, coupled with our natural Anglo-Saxon or Teutonic distrust of untried remedies, often leads the audiences whom we address to doubt whether the students of social science do in fact promote practical and useful reforms. I know of no better way to remove this doubt than to cite a few instances drawn from the experience of the last year or two, to show where and how and by what means an Association like ours has wrought important changes for the better, or very efficiently promoted them.

The most conspicuous instance of this is one that has been remarked upon in former reports, but is now more interesting than ever before,

because we have reached the critical period, when the important change is to take on a practical shape,—I mean the reformation of the national civil service. It is with this more than with any other single measure that our Association has been identified, and it was by our members that the unwelcome topic was forced upon the attention of Congress and the executive, until the agitation thence resulting began to show the people themselves what the existing evils were,—and the people began to demand reform. When this happened, the two political parties contending for power in the memorable election of 1876 were compelled to pledge themselves to make the desired change. We were not sanguine enough to suppose that this secured success,—nor would it have done so, perhaps, but for the extraordinary political events that have happened since we last met in Saratoga. The presidential candidate for whom a majority of our countrymen voted failed to receive the legal certificate of his election, and his opponent, the minority candidate, was inaugurated. It so happened that this candidate was the more firmly pledged, both by his convictions and his circumstances, to the true principles of civil-service reform; while the condition in which he has found himself since he assumed office has made it easier for him than it could have been for his opponent, to commence a reaction against the vicious practice of these forty or fifty years,—a practice sufficiently described in the coarse phrase of a New York statesman,—"To the victors belong the spoils." At last, therefore, we begin to see office-holding divorced from politics, and, as a member of the new government has said, "the party machine disestablished." Whatever may be the result of the efforts now sincerely making in this direction, it is certainly cause for congratulation that they have been made. They must leave our civil service better than it was six months ago; and if they are sustained, as no doubt they will be, by the hearty support of the American people, we may have a radical and, let us hope, a permanent reform of a gross abuse.

It is nearly twelve years since the Social Science Association began to labor for a reconstruction of the civil service, and we have not yet got very far in that direction. But in another matter, the abolition of the old system of coroners, with their juries and inquests, the progress made by our Association since last September has been wonderfully rapid and successful. The steps taken in this matter can be so clearly traced, and the persons actively engaged so definitely known, that you will pardon me for mentioning them in some detail. Five weeks after we separated last year (to be precise, on the 11th of October, 1876), Mr. Farrer Herschell, an eminent queen's counsel and member of Parliament in England, delivered an address at the Liver-

pool Social Science Congress, in which he discussed at some length the evils of the existing coroner system in Great Britain, and said: "I am led to the conclusion that the time has come when we may dispense with the services of a coroner's jury altogether." It was a startling conclusion, and must have produced on many minds an effect like that which would follow should one of us propose to drop Wednesday out of the week, or dispense with the services of the full moon. The coroner seemed as ancient and indispensable a luminary as the moon —as regularly recurrent as any day of the week. But the thought of Mr. Herschell took root and germinated in the Health Department of our Association, which was then holding monthly meetings in Boston. It determined to have the question discussed in Massachusetts, and engaged a young lawyer, Mr. Theodore H. Tyndale of Boston, to read a paper on coroners at its department meeting for December, 1876. Mr. Tyndale read the report of Mr. Herschell's address in the London newspapers, investigated the law and the facts so far as Massachusetts was concerned, and wrote a strong and concise paper recommending the substitution of skilled medical examiners for the untrained coroners who existed in Massachusetts in great numbers. The Governor of the State happened to be preparing his annual address to the Legislature at this time, and to him Mr. Tyndale and our Health Department presented the case, as disclosed by their investigation. The Governor was persuaded, and inserted in his address a recommendation that coroners be abolished. The Legislature were more slowly persuaded, but early in May, 1877, passed an act abolishing the coroner and his jury, and substituting therefor a competent force of medical examiners, two of whom, in Boston, were to take the place of nearly fifty coroners. This act went into effect on the 9th of May, and before the first of July all the coroners had been replaced by physicians, and fifteen acts or parts of acts relating to coroners had been repealed or amended. Thus, in less than nine months from the date of Mr. Herschell's address in Liverpool, a population half as large as that of Scotland had been set free from the absurdities and abuses of "crowner's quest law," and a few responsible and educated men had taken the place of some hundreds of inefficient and ignorant officials. This was done at the instance of the Social Science Association, and by the active efforts of perhaps ten of its members. The consequence is, that in other States of this country, and even in Ireland, the recent legislation of Massachusetts is now made the basis and the argument for similar legislation there, and it is probable that, within five years, half the United States and perhaps the whole United Kingdom of Great Britain will in this respect follow the advice of Mr. Farrer Herschell and Mr. Tyndale.

It may be said, perchance, that a change so easily carried is in danger of being rash and insufficient, or else of being as easily overthrown. "Time," said Bacon, "is the greatest innovator; shall we not then imitate time, which innovates so silently as to elude the senses?" But Time is sudden as well as creeping; when the hour comes, it strikes, and the short alarm-bell sounds forth then from a million clock-towers. In a moment all is silent again, and Time, that was but now so noisy and importunate, becomes stealthy once more, and creeps away with another portion of our life. It is the main advantage of Associations like ours, that they train observers to know when the hour has struck; they maintain signal stations by which the fulness of time is announced in advance, as we foretell the weather in one place by hearing what it was yesterday in another place. Distant out-looks are thus made from towers and mountain-tops,—or else the ear is laid to the ground, and the announcement of coming change is heard in tremblings of the earth, or low vibrations in the air. Even those events that come upon us most suddenly, and, as it were, by surprise, like the recent labor riots in this country, are always preceded by infallible omens, did the observer but know how to read those signs aright. At our last meeting here, one of our members, Mr. Jüngst of Cincinnati, in a paper which was read only in part, for want of time, announced, with unmistakable emphasis, the social conditions that have made such riots possible. He said: "We see our nation on the way to be divided into two hostile parties, a few controlling wealthy capitalists, and large masses of poor and more or less dependent proletaries; millions of our laborers without any certainty of subsistence, without any hope of improving their condition, and with earnings that must fall permanently, by the iron law of demand and supply. . . . We cannot expect that our toiling masses will quietly accept such a theory of the conditions of life. They see our wealthier classes indulge in the most extreme luxury and wasting of money, such as perhaps no other class in the world does,—East India nabobs and the Russian nobles excepted,—they see our society often yielding to corruption, to satisfy this extravagance of living; as the lately discovered irregularities in nearly all branches of our government have sufficiently shown. The impression thus made upon the workingmen can only be of the bitterest kind. He sees his earnings decreasing, his employment shortened, the needs of his family unsatisfied, and his hopes of an independent position vanishing. The prospects of his children are no better. His sons will be factory-workers, his daughters perhaps the same,—all proletaries, if not worse. . . . . This dissatisfaction and uneasiness, this revolt against authority, does not exist alone among our laboring classes; it is spread widely among our small busi-

ness-men, handicraftsmen, book-keepers, clerks, teachers, and the entire class of dependent employés. Any revolution, promising improvement of their economic and social condition, with only a glimpse of success, will be welcomed and joined by many thousands of them."

Doubtless this picture is too darkly colored, and the thing thus described is rather a tendency and a dismal possibility, than a condition of affairs that we have actually reached anywhere in the country. But there were moments during the labor riots when it seemed as if the prediction of Mr. Jüngst were coming true at once; so rapid was the progress made toward anarchy and social revolution in a few hours at Pittsburg. The good sense of the American people swiftly prevailed, and even the rioters soon recovered their reason. But the causes which impelled to such a collision between labor and one form of aggravated capital still remain, and until they are counteracted they threaten society at all points. There is missionary work to be done in this direction, and it may as well be undertaken by this Association. Nor are the poor, misguided, often vicious and dangerous rioters the only persons who need to learn wholesome truth on this subject: it is to the "rich and ignorant classes," as Douglas Jerrold called them; to the powerful and corrupting centralizers of capital and controllers of legislation, that warning and reproof should also be addressed. Against riot and anarchy there is but one final weapon,—military force; but it will be a sad day for America when the rights of property and the quiet of society depend on the federal bayonet for their daily protection, and not upon a sound public opinion, embodied in wise laws and humane customs. In the debate upon the labor question on Friday afternoon and evening, this subject will be so fully considered that I need dwell on it no longer.

A few words may be said on the Silver Question, which also you will hear fully debated this very morning. This subject has suddenly acquired such prominence as to overshadow, for the present, many financial topics that probably will be found of greater permanent importance. At our meeting a year ago, you remember with what force it was discussed by Mr. Horace White, with what earnestness by Mr. Thomas Balch, with what impartiality by Mr. George Walker and others. In the following autumn it was proposed by the executive committee of the Association to prepare and print a small manual of information concerning silver and gold and their relations to each other as money; but the gentlemen who undertook this found that the ground had been fully covered by Mr. Dana Horton, one of our members, in the publication to which Prof. Jevons alludes. They therefore laid aside the task; but Mr. Balch, at our annual meeting in

Boston last January, contributed a paper of much historical value, which was then debated and afterward printed in the "Penn Monthly." In the meantime, Mr. Cernuschi, the French economist, had visited the United States, and had made many converts to his theory of international bi-metalism, which Prof. Jevons finds so impracticable; while the national commission, on which Senators Boutwell and Jones, Mr. Groesbeck, Prof. Bowen, and others have served, was pursuing its inquiries. It was supposed that the report of this commission would have been given to the public long before this time; but for some reason, which perhaps Senator Jones could give if he chose, it has been withheld. Quite possibly, however, as Prof. Jevons implies, this report would add little to our knowledge of the facts, which are already very well understood. There is still much controversy, to be sure, as to how the facts should be interpreted in regard to the probable consequences of remonetizing silver in this country, and you will soon hear all sides of the question ably debated. We have to regret the absence of Mr. Walker, who presided at our debate last year, and who has since been prostrated by a long illness, and of Mr. Balch, whose lamented death occurred last spring in Philadelphia.

Mr. Balch was one of our most recent members, though he had long been pursuing by himself the studies of social science, and publishing his results, both in his own country and in France, where he long resided, and in the literature of which, especially in history and economic science, he was well versed. We have also to mourn the death of two of our oldest members, Prof. Emory Washburn of Cambridge and Mr. Edward Earle of Worcester. Both of them were among the founders of the Association in 1865, and had been constant in its service ever since. Prof. Washburn is mentioned by his latest title, given him by Harvard University, where he taught for many years in the school of law; but he had received many other titles, and had filled nearly every grade of office which Massachusetts had to bestow. He was a member of her Legislature in 1826, again held the same position half a century later, and was one of the most influential and active members of the Legislature in 1877, at the time of his death. In the interval he had been commissioner, senator, judge, and governor of the State; seldom absent from some responsible public position during more than fifty years of his active life, and always acquitting himself with honor and usefulness. Edward Earle has also served prominently in municipal and State offices, and at the time of his death, in May last, was chairman of the Massachusetts Board of State Charities — a position so long held by his friend and ours, the late Dr. Howe. Each of these three men — Prof. Washburn, Mr. Earle, and Mr. Balch — represented with complete fidelity his own side of

social science. Washburn, busy, eloquent, and accomplished,— a citizen and a magistrate, but also a scholar and a man of the world,— touched society at many points, and nothing good in its pursuits or its culture was foreign to him. As a jurist and a historian he made his mark, but it was the welfare of his fellow-men he sought, rather than his own fame or ease. Balch, no less studious, but less active, and not inheriting the quick New England blood which spurs us to continual motion, pursued his tranquil researches, and gave us freely from the stores of his remote or recent knowledge. Earle, devoting himself to industry rather than study, became versed in men and affairs; but, with silent and wise beneficence, gave his early won leisure to the cause of the poor and the improvement of mankind. His eloquence was of the hand and the heart; and to him, as to many more of us, social science was most attractive when it drew nearest to philanthropy. Had he read Lord Bacon, instead of following George Fox and William Penn, he would have found in the stately chancellor sparkles from the same inward light which illumined Fox and his gentle disciples. For it was Bacon who said, as they might have said, and as we say: "Regarding ourselves we are silent; but touching our undertaking we have to request that men will look upon it, *not as a system of opinions, but as a work to be done;* and be assured that we seek to lay the foundations of no sect or dogma, but of human usefulness and greatness."

In organizing our American Social Science Association, twelve years ago, those who framed its plan followed the general course of the British association, organized in 1856–7 by Lord Brougham and a few of his friends. The division into departments, for the sake of better classifying the innumerable subjects of inquiry, is now made, with us, into five; namely, Education, Health, Trade and Finance, Social Economy, and Jurisprudence. In England the divisions are also five (four departments and an art "annex"); namely, Jurisprudence and the Amendment of Laws, Education, Health, Economy and Trade, and Art. We have divided the department of Economics into Trade and Finance (or Political Economy) and Social Economy, — the latter dealing less with the political or governmental than with the social and domestic relations of economic truth. The English, on the contrary, have let this department stand single, but have separated the province of Art from the department of Education. They also place jurisprudence first, because the administration and amendment of the laws is so great a part of English life; we have placed it last, because the American habit is to proceed by ways not requiring strict legal compulsion, until in the last resort it is found needful. The use of laws, as we hold, is to foster self-government,—and to such an extent is the American training recognized by discriminating Englishmen,

that the late Walter Bagehot said he believed "the men of Massachusetts could work any constitution." It is no more true of them, probably, than of many other American communities. But to the extent in which it is true the particular form of laws in use becomes comparatively unimportant; while the work of Associations like ours, which help to form and guide public opinion, by discussion, by information, and by persuasion, becomes relatively more important. We find the working point — the place at which our strength must be applied — more quickly in this country than anywhere else in the world. Unfortunately there are so many working points, and so few persons to apply persistent and disinterested effort where it is most needed, that we do not get on so fast, in some respects, as a country like England. Men and women of the same mind are in America separated by such distances that they can the less easily associate and work together. For this reason chiefly, our five departments are never all at once in a state of the highest activity and usefulness. In one year one of them will work vigorously, in the next year another. The departments of Health and Jurisprudence have of late been the most active, while those of Education and Finance have been the least so. For this reason educational questions have been divided between the departments of Health and Jurisprudence, while economical questions have been assigned to the general assembly of the Association, in which they are always sure of intelligent and earnest treatment. The few topics specially belonging to social economy are this year assigned to a special session on Friday, in which the ever-important subject of "Homes for the People" — how to provide them and how to make them attractive — will once more be considered.

Besides the work strictly belonging to our Association, there is offered again — as in Saratoga last year, in Detroit in 1875, and in New York in 1874 — the opportunity to discuss the broad subjects of public charity and the prevention of crime, in the annual meeting known as the Conference of Charities. This body was in its origin an informal organization of official persons from a few of the States, where the tasks of public charity were intrusted to boards of State officers. Still retaining this form, the Conference has become a gathering of many more persons, all of whom are in some way connected with the dispensation of charity, public or private, or else with agencies for the repression of pauperism and crime. Its sessions are open to all members of our Association, and its papers and debates are of much interest to those who give their attention to the very grave topics that will be discussed there. The Conference, however, is not a department or branch of the Association, but an independent convention, which does us the favor to meet conveniently near us.

Of all that was written, said, and done at our Saratoga meeting of

last year, the only part as yet officially published and distributed to members, has been the proceedings of the Conference of Charities. Arrangements were made for the publication also of the valuable papers on legal education; but these were delayed in consequence of the very serious illness of the gentleman who had undertaken to edit them, and it has been found necessary to defer publication till after the present meeting. With regard to the other papers, many of which have been printed and circulated in newspapers, magazines, and pamphlets, their publication in our regular Journal of Social Science has been prevented by the lack of funds. This Association, like most in the United States during the past four years, has suffered for want of funds, and, though it has managed to avoid embarrassing debts, has been deprived of the means of circulating its publications freely. At times even its continuance in activity has been doubtful, and its directors now appeal to the friends of social science throughout the land to make the slight effort and sacrifice necessary to place it on a firm pecuniary basis. This may be done either by increasing its annual membership from 300 to 1,000, which is about the number in the British association, or by raising each year a subscription in larger sums than the membership fees, to the amount of from $2,000 to $3,000. With an assured addition of $2,000 a year to its income, the Association would carry on its work frugally; with a yearly income of $5,000, it could do all that seems necessary for us to undertake. The British Social Science Association, which undertakes much more, and which annually prints a volume of 900 pages, has an income of less than $10,000.

Though we say it, who should perhaps not say it, there is no other way in which this small sum (whether it be $5,000 or $10,000) can be better expended in the United States, than for promoting the work of social science, in the ways and by the means which an experience of twelve years has opened to our Association. In no country is there more of this labor to be done, and nowhere, if rightly directed, would it be more fruitful. In advancing education, in improving the public health, in promulgating economic truth, in pointing out the best way to create or to maintain a high standard of home comfort without excessive cost; finally, in ameliorating our laws and in securing their due and honest enforcement by properly educating and encouraging those whose business is jurisprudence and the administration of justice,— in all this, which is the field of our Association, there is "ample room and verge enough" for all who have at heart the welfare of their fellow-men. Every year new occasions arise, teaching new duties, and affording enlarged opportunities for doing good or correcting evil.

A few years ago our attention was drawn to a noble plan, till then

untried in America, for training intelligent and conscientious women to be nurses. Our Association favored it, and it has since gone into practical effect, with marked success, in several of our largest cities, and partly by the efforts of some of our members. Another plan for opening to women a wider career, this time in the pursuits of learning, now comes before us in the new courses of collegiate education that have been commenced, in Massachusetts and elsewhere, since our Association, in 1873, discussed with conflicting opinions the higher education of women. Two recently founded organizations to aid in this work have come to my knowledge since our last meeting, which deserve mention here, as seeking, by reasonable methods, to advance the education of women. One is the "Society for Promoting Study at Home"; the other is the "Massachusetts Society for the University Education of Women." The aim of the one is sufficiently indicated by its name. The other has for its object to assist studious and deserving young women in the same manner that young men in college have long been aided,—by loans, gifts, and the foundation of scholarships, which shall give a small income to the student who obtains them. Both are managed by ladies, who bring to their task the devotion, insight, and tact which belong specially to their sex, and without which such enterprises rarely succeed.

These are but examples of hundreds of useful but almost unobserved agencies for carrying onward the practical work of social science; most of which depend, first or last, upon the interest taken in them by women. Let us profit by this hint, and remember that although the *theory* of social science has been framed by men, its *practice* can only be advanced by the co-operation of women. The slow progress made until the past hundred years, and the rapid advances since gained, may both be explained in part by the great change that the last two centuries have witnessed in the position of women among all the civilized nations. May it not be that in the conversion of the world to peace, to wisdom, and to virtue (which we all desire and hope for), the influence of women is no less needful than the German sage has declared it to be in the regeneration of a lost human soul?

Das Unbeschreibliche
Hier ist es gethan;
Das Ewig-Weibliche
Zieht uns hinan.

"Through ways unsearchable
Heaven's will is done;
Love, ever womanly,
Drawing us on."

THE SILVER QUESTION.

BY W. STANLEY JEVONS, LL.D., M.A., F.R.S.
[Professor of Political Economy in University College, London.]

Read September 5, 1877, by Hamilton A. Hill of Boston.

It is evidently impossible to discuss the innumerable facts of the silver question in a brief paper like the present. My purpose must be restricted almost entirely to expressing the conclusions which force themselves upon an English reader of the recent discussions.

In several official publications — in the excellent minority report of Professor Bowen, or the works of Mr. Blake, M. Cernuschi, Mr. S. Dana Horton, in Mr. W. L. Fawcett's useful "American Handbook of Finance," and in numerous minor books or articles — we have abundance of facts. We are not likely at present to get more information of importance, and our task, therefore, is to digest what we have and to interpret its outcome wisely.

The general result, as it appears to an Englishman, is, that the United States should not, or rather cannot, adopt the double standard. If the attempt be made, it must be made either with or without the similar action of other nations. But the first supposition is easily disposed of. The notion of M. Cernuschi, that there might be a congress of nations, and that the leading commercial States might be induced to unite in adopting bi-metallic money, is chimerical. Several of the more important European nations have for the present no hope of using coin, whether gold or silver. Germany is only now establishing an excellent currency on a gold basis, and is most unlikely to abandon it without further trial. The Scandinavian kingdoms have no reason for retracting their late adoption of gold, which has done no harm. Even France, which has still the law of the double standard in nominal existence, shows no desire to put it into operation again, having experienced the trouble of an alternating standard and a heavy silver currency.

As to England, there is not the most remote chance that the proposal would be accepted or even entertained here. The present English system of metallic money has now existed almost unchanged since 1816, and it has worked so satisfactorily in most respects that it would require very strong reasons for making a fundamental change. Even were there a considerable weight of evidence in favor of the double standard, it would probably be found impossible to persuade the House of Commons to accept it. In nothing is the English nation so conservative as in matters of currency.

To show this by some instances, I may mention the question of decimal money. Nothing is more apparent than the superiority of a decimal system, like that of the United States or France, over our £ s. d. The subject has been discussed *ad nauseam* for forty or fifty years, and some of the ablest men, such as the late Professor De Morgan, wasted great labor in advocating the obvious reform; but nothing has been done, and we are, perhaps, further from success than ever. Again, there is absolutely no sensible reason against the use of one-pound notes, which have been in constant circulation in Scotland from the first origin of the Scotch banks. But an English chancellor of the exchequer would not venture to propose their use in England. When it was shown, a few years ago, that the alteration of the pound sterling to the extent of twopence would probably lead to the establishment of international money, our financial wiseacres decided that it could not be done. What, then, would be the reception in England of a proposal to subvert our standard altogether? So long, too, as the mother-country retains the gold standard, there would be no chance of the Australian and South African colonies abandoning it. If, then, the United States were to adopt the double standard, they would throw into confusion the monetary relations of the foremost commercial nations, while the universal bi-metalism essential to the success of M. Cernuschi's schemes would be as far distant as ever.

If, indeed, the adopted legal ratio of gold and silver were such as to enable gold to circulate in the United States, then no effect on the value of silver would be produced, and all discussions would end in nothing. If the legal ratio were fifteen and a half to one, as proposed, then full-weight gold coins could not circulate, and the currency and the standard of value would consist of silver only. American trade would be hampered by a money fifteen and a half times as heavy as it need be. Americans would be loading themselves with silver fetters; and for what purpose? In order that the rest of the world might enjoy the superior convenience of gold money. While other advanced nations are passing, one after another, from the silver age of currency to the golden age, America, and probably America alone, will be stepping back from the gold age into the silver age. This seems to me about as wise as if the men of the bronze age had solemnly decided to reject bronze, and to go back into the stone age. In a matter of this sort, we must take account of general and long-continued tendencies, and the tendency now appears to be inevitably toward the general adoption of gold as the standard money.

In the last six centuries both the precious metals have become greatly depreciated. An agricultural laborer can now earn in England by a day's labor about *ten times* as much silver as he could six centuries

ago (about three hundred and fifty grains of standard silver as compared with thirty-four grains). Silver, too, is depreciated more than gold; in the middle ages the ratio was ten or twelve to one; now it is sixteen, or even twenty to one.

To attempt to arrest progressive changes of this kind is blind and vain striving against Providence. Why should we try to keep silver dear? If the mines of America yield so beautiful a metal in sufficient abundance, why should we not enjoy the use of it for ornamental and useful purposes, for which it is at present too expensive? Why should we wilfully employ it in the very way in which it is not useful, but simply inconvenient? When looking at pictures of Indian women who load themselves with silver bangles and anklets, it is difficult to help wondering how such a weight of ornaments can add to the enjoyment of life. Vanity can explain a good deal, but what can explain the wish of the Americans to load themselves with silver coins, from which they will derive no gratification whatever? The benefit, if any, will fall to other nations, which can use gold in greater abundance, and no American will be better off, unless, indeed, it be the few proprietors of silver mines, who, being rich already, will become richer still.

I might go on to show that, even if America could establish the double standard, and succeed in inducing other nations to do so likewise, the advantages of so great and so difficult a measure are of a very speculative and doubtful kind. I quite concede to MM. Wolowski and Cernuschi that the bi-metallic system does spread fluctuations of supply and demand over a wider area. I have tried to explain in my book on "Money," that gold and silver, free from the action of a legal ratio, are like two unconnected reservoirs of water, each liable to be raised and lowered in level by various accidents. Establish a communication between these reservoirs, and then each new supply spreads itself over a double area, and each new demand is supplied with less effect upon the general level. The legal-currency ratio of fifteen and a half to one actually does establish a communication of this sort between the reservoirs of gold and silver in the world; but it does not, therefore, follow that it is desirable to establish the communication.

To say the least, it is quite open to argument that silver is now a metal less steady in value than gold. If one mine like the Comstock lode produces so serious an alteration in the supply, what may we not apprehend when the mineral treasures of Peru and Mexico are opened up by Anglo-Saxon miners? Both Humboldt and Murchison were of opinion that enormous supplies of silver would some day be obtained from South America, and what has occurred in Nevada lends probability to their predictions. Moreover, silver is drawn almost exclusively from regular mines, and it is extracted from ores, so that the advance

of mechanical and metallurgical science tends to cheapen it in the same way (though not in so great a degree) that it cheapened iron and steel. This is much less true of gold, which is found to a considerable extent in the native state in surface deposits. Gold is a widely diffused metal, and there are large tracts of auriferous deposits which might be worked if an increased demand for gold should make it profitable.

Under these circumstances it is probable that the double standard, or, as it ought to be called, the *alternative standard*, will be really less steady in value than the gold standard alone. Indeed, it is difficult to help looking upon the adoption of a silver standard now (and the double standard would not differ much in practice from a single silver standard) as approximating indirectly to an act of partial repudiation. I take it for granted that if the United States were to adopt silver the Federal and State governments would make provision for the payment of past obligations, including the whole national debt, State and city debts, railway bonds, etc., in the gold money in terms of which they were contracted. I am sorry to see, indeed, that M. Cernuschi, if I read him rightly, proposes that "all existing debts, stipulated in dollars of whatever denomination, shall, without exception, be payable in the new bi-metallic currency." Such a measure would verge closely upon a breach of faith, for the change would be made on the ground that silver is depreciated. And if, as is probable, the bi-metallic system would not restore silver to its original value, then creditors will plainly lose, to the advantage of debtors.

One of the most powerful arguments in favor of the double standard is founded on the idea that there will not be gold enough to meet alone the advancing needs of commerce. Prices, it is said, will fall, and the burden of debts will be increased by the demonetization of silver. But there is no proof, and not even a probability, that such results will follow. In the past thirty years the supply of gold has certainly been excessive, as shown by the progressive rise in the cost of living in almost all parts of the world. The same tendency, the progressive depreciation of the precious metals, has been going on, as I have already remarked, for centuries. Should the adoption of a gold metallic currency in America and elsewhere tend to slacken this continual fall of value for a time, there would be nothing to regret in the result; but I doubt if it would even do this.

On the one hand, there is no good evidence of any considerable falling-off in the excessive supplies of gold yielded by California and Australia. Elaborate calculations have been made to show the inadequacy of the gold supply. I am much inclined to agree with the late Mr. Bagehot, who, in the course of his excellent evidence concerning

the depreciation of silver, said that estimates of the stock of gold and silver were not worth the paper they were written on. Even the apparently precise returns of produce and amounts transmitted are probably most inaccurate. But, even taking these returns, Mr. S. Dana Horton, in his ingenious work on Gold and Silver (p. 28), comes to the conclusion that the net annual supply of gold for the use of money is twice that of silver; namely, sixty millions of dollars, as compared with thirty millions. Now, if we remember that of the whole population of the world probably two-thirds use silver coin exclusively, and are in the habit of melting it up and burying it in the earth, whereas those who use gold use silver also for subsidiary currency, I cannot see that there is any evidence of gold becoming comparatively deficient. Mr. Horton concludes, too, that the present annual addition of new gold is one and two-thirds per cent. of the total stock of gold money, while that of new silver is only about one per cent. of the silver money. So far as such calculations have any weight, they are strongly in favor of a gold standard. I may add that Mr. Hollingberry, after an elaborate inquiry carried out for the information of the Indian government,* comes to the conclusion that the production of gold is much underestimated; that there has been little falling-off in the aggregate yield, and that there is little prospect of any further falling-off. It should be remembered, too, that the product of the Comstock lode consists of gold to the extent of forty-five per cent. in value.

On the other hand, I see no probability that any great nation except the United States will soon want a considerable supply of gold. Russia, Italy, Austria, Turkey, and other States with depreciated currencies, are not likely to coin much gold at present. France already has the largest stock of gold ever accumulated in one place, and can hardly want more. The Scandinavian kingdoms have already exchanged their small bank reserves of silver for gold, and their gold currency makes no progress. England already has a currency mainly composed of gold coins, and cannot want more than the usual annual addition, which is probably not the half in reality of what it seems to be by the returns. Germany, no doubt, is still absorbing gold, but the quantity absorbed is really much less than what is coined.† In looking round in this way, it is difficult to see where any very great demand is likely to arise simultaneously with the American demand. No doubt, as I have

* The Production of Gold and Silver, etc.; Selections from the Records of the Government of India. Calcutta, 1876.

† This is due to the large amounts of coin which are melted, carried abroad by travellers, or exported without proper declaration at the custom-houses, so that they are not entered in any returns.

said, the use of gold money will gradually progress, but a costly change of this kind will take decades or even centuries of years to carry out.

Nor will the United States require any very great quantity of gold when they resume specie payments upon a gold basis. It is quite a mistake to suppose that, because a currency is *convertible* into gold at will, it is therefore *actually converted* into gold. In England we have a great quantity of gold coin, because there is an absurd prejudice against the use of one-pound notes, so that sovereigns must be used as change for five-pound notes. In Scotland it is just the reverse, and it is not uncommon for a beautiful gold sovereign to be actually refused, and a one-pound note demanded instead. In Sweden and Norway there has long been in use a well-regulated paper currency, and, so far as my own observation goes, there is little prospect of the new gold coin beating out the notes.

So, in the United States, the resumption of specie payments does not mean necessarily that all the notes shall be replaced by gold coins. Gold is not really requisite except for making international payments, and the stock kept need not be very much larger than will meet any conceivable demand for exportation. Provided that the amount of notes afloat is made to rise or fall by the exact amount of gold added to or drawn from the reserve, in the manner of the bank-charter act and the present German system, it is possible to have a currency conforming exactly to the variations of a gold currency, and yet consisting mainly of paper.

The resumption of specie payments seems to me to need no heroic measure whatever. Already the premium on gold is so low that, if the dollar were made coincident with the five-franc piece, the paper dollar would be almost at par. The difference of about two per cent. would disappear of its own accord as trade becomes brisk again. The par having been once established, it would be possible to begin making specie payments in gold in a partial manner, as is actually done at present by the Bank of France. Payments might at first be limited to small sums, or fenced round with such conditions and precautions as would prevent any sudden run for gold. After the novelty of specie payments was worn off, these precautions might be gradually abandoned, and convertibility would be achieved without any violent change whatever. Nor does there seem to me to be any need to make national bank notes convertible to any amount at the bank issuing them. They might continue to be convertible into Treasury legal-tender notes, which would become convertible into gold at Washington or such other few spots as might be selected for the deposit of the reserve. As gold is really only needed for international transactions, the reserve should

be concentrated, and not dispersed over a great many local and minor banks.

Finally, as regards the future American dollar, I agree nearly but not entirely with Professor Francis Bowen. Excepting in a few minor points, I believe his report to be true and wise from beginning to end, and I trust that his recommendations will for the most part be adopted. He proposes that the dollar shall contain 22.6 grains of gold, so that the five-dollar piece may be the exact equivalent of the pound sterling. The choice ought, doubtless, to lie between this and the twenty-five-franc piece, and those who do not yet quite despair of international currency would prefer the latter. In this case the dollar would contain 22.40 grains of pure gold, and the American five-dollar piece, containing about a grain less gold than the sovereign, would be preserved in this way from being melted wherever it came into competition with the sovereign. It is a law of currency that the lighter coin lives and the heavier one goes to the melting-pot. In this way the American five-dollar piece would probably become the predominant gold coin, until such times as the English people would see the wisdom of reducing their sovereign by twopence, and thus establishing a simple ratio between the Latin, American, and English currencies.

But this is a matter only of detail. My principal purpose is accomplished if I have adequately expressed the strength of my conviction that, in trying to establish a bi-metallic money, the American nation would be setting themselves against irresistible natural tendencies so as to ensure defeat. For the sake of making those richer who are rich already, they would be loading themselves with heavy metal, which, if it is to be abundant, had better be left to other uses, or to those eastern nations who are too poor and ignorant to employ gold. It is the general rule in commerce to take care of "number one," but in bi-metallic money the rule is reversed, and "number one" is asked to carry silver coin in order to benefit "number two" and "number three."

THE SILVER QUESTION.

BY B. F. NOURSE.

[Read at Saratoga, Sept. 5, 1877.]

The silver question is a very old one — so old that ancient history does not go beyond it in the past; yet it is as fresh and important now as ever.

The modern range of the question, which is of the relative value and utility of silver and gold as standard coin, is pressed with new force upon the consideration of all government by recent events, beginning in 1871, and in this form: —

Is it better that the coin standard, or unit of money value, shall be of gold, or of silver, or of the two metals associated at a fixed relation of value; and which is the better for all commercial nations?

The present is a period of change. The foundation which served well for the seventy years ending in 1873, a period marked by extraordinary social and material progress, has been broken up, and a new one must be laid if we are to have order and the highest attainable good brought out of the present confusion, conflict of policies and diversities of legislation.

The subject is broad, touching all political economy, the prerogatives of sovereignty and national pride. Only its larger aspects and more prominent points can be discussed within the proper limits of this paper.

Two prominent events occurred early in this century*; in France (in 1803), the legal adoption of a fixed relation in value between gold and silver as money, which for many years was potential, the ratio being one weight of gold to fifteen and one-half weights of silver, with unlimited coinage and equality of tender of both metals; and in Great Britain (in 1816) the legal adoption of the gold standard of money,

* According to Humboldt, the yearly production of the precious metals at the end of the eighteenth century, was: Of gold, about $13,000,000; of silver, $38,000,000. Jacob estimated the annual production — 1809-1829 — of gold, $8,000,000; silver, $18,000,000. If it be true, as estimated by scientists, that the production of silver in all countries since the discovery of America amounts to over $7,000,000,000, and that the stock of silver bullion and coin is now less than $3,500,000,000, it follows that only about forty per cent. of the silver held by the world as money, A. D. 1500 (estimated at $1,500,000,000), and since produced from the mines, is now available as money. It will be well to remember this fact when we are estimating the effects of future production of silver upon money supply. The production in seventy-five years, 1800 to 1875, is estimated at $2,600,000,000. If fifty per cent. of it becomes money, say $1,300,000,000, and the money stock now is $3,450,000,000 (Seyd and others), the stock, A. D. 1800, must have been about $2,150,000,000.

preceding the resumption of specie payments by the Bank of England (in 1821).

A report to the British Parliament about that time said that the relative value of silver and gold in the market at Paris had not varied more than one-fourth to one-half of one per cent. during the two years 1817 and 1818. This was regarded as a remarkable accident. We shall see that the French ratio of value was nearly as closely maintained in the bullion markets of Europe during the next half-century, often under very trying circumstances.

When the several nations had adjusted their monetary affairs after the destructive wars that ended in 1815, this, in brief, was the situation: The legislation of the gold standard in Great Britain, the silver standard in Germany and British India, and the bi-metallic standard in nearly all other commercial nations, led by France, had together established a practical and substantial equilibrium between gold and silver. The erroneous bi-metallic ratio in the United States had no influence. Silver was not a legal tender beyond forty shillings in England, nor was gold in Germany, yet in London and Berlin an ounce of gold was the equivalent of fifteen and one-half ounces of silver, on an average as nearly steady as at Paris or Amsterdam.

Extraordinary phenomena marked the period between 1820 and 1870; of peace and wonderful progress in the arts, manufactures, and commerce; of war and its consequences, of inflation and depression, panic and recovery, and of sudden increase, for a time almost threefold, in the yearly production of gold. Through all these changes the fluctuations in the relative value of silver and gold were inconsiderable, and chiefly from causes other than the relative production of the two metals.*

* NOTE.—The following table shows the average price per ounce of standard silver in London, and the average ratio of silver and gold of equal value in each decade of the seventy years, 1801–1870:—

Years.	Gold value per oz. of silver. d.	Ratio of silver, gold being 1.
1801–1810,	60.41	15.61
1811–1820,	60.80	15.51
1821–1830,	59.68	15.80
1831–1840,	59.90	15.67
1841–1850,	59.57	15.83
1851–1860,	61.40	15.35
1861–1870,	60.91	15.47
And in single years since 1870:—		
1871,	60.05	15.59
1872,	60.31	15.63
1873,	59.25	15.90
1874,	58.31	16.15
1875,	56.87	16.58
1876,	53.18	17.73
And now (Aug. '77), the price and ratio are	54.25	17.38

The *monetary* par, recognized throughout Europe from 1803 to 1873, fixed by law in many of the continental countries through most of that period, and still continued in the States of the Latin Union as to existing coin and contracts, was adjusted at the ratio of fifteen and one-half to one in the first decade of the century. Through most of the seventy years bar silver was worth one-fourth to two per cent. less than its money ratio, a difference generally no more than the cost of minting; but in the decade 1851–1860, its average bullion value was nearly one per cent. above its money ratio.

The Bank of England resumed specie payments in 1821. The resumption was followed by two years of rapid rise of prices and supposed prosperity, the consequence of excessive issues of currency, redeemable in gold, and then came the distressing crisis of 1825–1826, the ill-effects of which were felt for many years. It was in this decade that bar silver declined lower in gold value than at any time for a century until the great decline, 1873–1876. Silver found its next lowest price in the decade 1841–1850, the remarkable events in which period are worth recalling briefly. The Bank of England was re-chartered in 1843, after a long and thorough discussion; a great railway speculation culminated in 1845, followed in 1846 by a commercial and railway panic and the repeal of the corn laws in England, and in 1847 by the famine in Ireland, a general panic and distress. The general revolutionary and agrarian movements in France and other continental countries in 1848 contributed to the disturbances of the period. At one time silver fell in London to 59⅜d. per ounce, or about 2½ per cent. below the money ratio of the continent. The next decade, 1851–1860, dated events even more extraordinary in their bearing upon the value of silver, but in the opposite direction. In India the government of Great Britain was carrying forward great works of improvement, such as railways and canals, by loans and subsidies, and conquering a rebellion. Immense sums of money, nearly all in silver, in addition to the usual trade movement of that metal, were sent to the East. Just when the drain of silver was largest, the newly discovered gold-fields of California and Australia were pouring their largest annual productions of gold upon the money markets, and economists were discussing the expediency of demonetizing gold to avoid the ill consequences of its expected depreciation, — as some of the same philosophers have recently urged the demonetization of silver; and now with more success. Yet in all that period, the highest rise of silver in London was only 3.1 per cent. above the continental money ratio.

This nearly constant relation of value, under circumstances at times of great disturbing power, was sustained by the equilibrium mentioned

as the accidental result of balancing legislation. But the equilibrium itself was sustained, after the discovery of the great gold-fields, only by the wise policy of France and her associate bi-metallic nations, under the guidance of their great banker-statesmen. They kept open the unlimited coinage of both gold and silver, and so preserved the balance. We cannot, in this connection, overstate the effective power of the fact that all the gold and all the silver brought to the mints was converted into full-value money for its owners, at the ratio of fifteen and one-half to one, nor of its agency in controlling the market value of gold and silver bullion.

The beginning of a great change came in 1871, when Germany took its first legislative step to substitute the gold for the silver standard. Later, in 1873, another act established the new system. Just then, statesmen, economists, and journalists were discussing the question of one universal gold standard of money, often coupled with the other question of international unification of coins. Popular opinion was ably led to favor the gold unit. Then the flow of silver to India was reduced; the borrowing current gave place to a paying current of lesser volume. The discarded silver of Germany came upon markets that were losing the former large demand for this metal. The bonanzas of the Comstock lode had begun to make their large contribution to the yearly production of silver, while the production of gold seemed to be diminishing as the richer surface placers became exhausted. In 1873 the United States abolished the silver dollar, and, although there had been no standard silver in use since 1853, and none of any sort since 1862, the act was assigned as another reason for the depreciation of silver, then imminent.

Such is a brief and imperfect statement of the facts which concurred in 1871–73 to bring about the great fall in silver which was to follow.

Germany began the sale of her discarded silver. Of course it would flow to France and the other States of the Latin Union, where the mints were open to its free coinage at the ratio of fifteen and one-half to one; and Italy's portion of the coinage would flow to France, Italy being under suspension of specie payments. France bravely followed, for some time, her old policy of unlimited coinage, in the face of impending losses, and actually absorbed about $167,000,000 of silver during the four years ending July, 1876.*

When Germany definitely adopted the gold standard in 1873, France was just completing the payment of her great war fine, $1,000,000,000.

* Report of the select committee on the depreciation of silver, to the British Parliament, 1876.

Political as well as politico-economic influences bore upon the minds of her statesmen. They could not willingly become agents in promoting German policy and aggrandizement upon the proceeds of French indemnity, as they must if they continued the open and free coinage of silver. It was said, "All the demonetized German thalers will become French *écus*, and French gold will go to Germany in exchange; silver may fall materially outside of France, while France will be paying for it in gold at one to fifteen and one-half, thus taking upon herself the cost of Germany's change of standard." So France suspended her old policy and joined with the other States of the Latin Union, first to restrict the silver coinage to fixed yearly sums on government account, and more recently, to stop the minting of standard silver altogether. This action of the monetary union was a long step toward the demonetization of silver in Europe; more decisive in that direction than the sale of all of Germany's surplus silver could have been while free coinage by the Latin Union (or France alone) remained open.*

The impetus thereby given to demonetization may determine its full accomplishment, to avoid the intolerable evils which are promised to any nation or minority of monetary influence attempting the bi-metallic system against the majority having the gold standard.

Down to 1873 the ratio of value, fifteen and one-half to one, was maintained throughout Europe,† and the bullion ratio was substantially the same. We have seen what was the state of legislation touching standard money during this period. The facts were coincident indeed, but more than coincident — they were cause and effect.

In 1873 the world took a new departure, under a policy, or absence of policy, unknown since the introduction of steam power on the

* It is questionable if the cessation of free silver coinage was good policy. Some have said that if the States of the Latin Union had continued to coin silver for all comers without limit, as they coined all the gold that came with great flow in 1855–1865, any disturbance of relative values would have been very brief; that the course of exchange would have taken the gold out of Germany and back to Paris and London almost as fast as it went to Berlin, and that the fallacy of an over-supply of silver money from a yearly addition of about two per cent. of its volume would soon have ceased to cause any anxiety, while the bi-metallic policy would have been preserved.

† Standard silver coin remains generally a legal tender in continental Europe, at the old ratio, though its free coinage is stopped. The decline in silver was started by the change in German law; began in 1873, moved slowly in 1874 and 1875, and in 1876 went rapidly down so far that bar silver was sold in London at less than 47d. per ounce, or twenty-three per cent. below its average price during the first seventy years of this century. It is now (August, 1877,) worth about 54¼d., or eleven per cent. below the old level, and eight per cent. below the old American ratio value, sixteen to one. Being money only where its use is enforced by the law of tender, or by sufferance and habit, its demonetized portion, not yet apparently large, may at any time appear in its full volume as simply merchandise for sale.

ocean, the telegraph, and other agents of progress invented in modern times.

One foremost fact should be noted here,—that silver and gold have in all ages served together as money, and almost always, and in nearly all countries, as standard money.

Great Britain denied to silver, within the kingdom, the quality of money, yet in her colonial and foreign commerce she has used more of it than any other western nation. London was the point for gathering and distributing silver as well as gold, while the money reserves of the kingdom were held in gold, the lawful money. In France, previous to the gold discoveries in California, nearly all the money was of silver. Of all the coin and bullion in the Bank of France, during the four years 1846–1849, the average portion held in gold was less than two and one-fourth per cent. The proportion of gold held by the people was probably no larger. In 1854 it had risen in the coffers of the bank to forty-nine per cent., because of the free coinage which the French mint kept open to gold after those discoveries; and in April, 1876, the gold portion was seventy-three per cent.

However and wherever either metal was massed, the silver portion was constantly employed actively among the people, where it was more effective than gold could be, or in reserves, and was readily transferred wherever wanted at the same cost as for the transfer of gold.

The growth of business in the twenty-five years, 1848–1873, next after the discovery of the great gold-fields, was immensely larger than ever before in a like period. For illustration, England's foreign trade increased from $825,000,000 in 1848 to $3,410,000,000 in 1873, or more than four hundred per cent. It is probably true that the trade exchanges of all the world increased two hundred and fifty per cent. in common average during that period, with a corresponding increase in the commercial products of industry and in the domestic traffic of the several countries. The world's stock of coin and bullion, applicable to money uses, was increased during the same period; according to the estimates of Ernest Seyd, substantially confirmed by others, the gold from $2,000,000,000 in 1848 to $3,650,000,000; the silver from $3,000,000,000 to $3,350,000,000; and the sum of both from $5,000,000,000 to $7,000,000,000, a net increase of forty per cent.*

Here is coincidence between the increase of money and the growth of business, but is there not cause and effect also? Admitting to the

* Our statistician, Dr. Young, estimates the production of the precious metals in the twenty-seven years ending in 1875 to have been, of gold, $2,761,700,000; of silver, $1,573,900,000; together, $4,335,600,000, of which $1,617,500,000 was produced in the United States.

utmost that truth and fair analysis of the facts can demand, the progressive forces of advancing civilization during this period; of invention and propulsion; in arts, manufactures and commerce; by quickening, extending, and cheapening transportation and exchanges; and all other improvements of the time, we have yet to regard these as subordinate forces, all more or less deriving their power from the one superior impelling force, the increase of money actively employed — of itself in its own volume, and, far more, as a basis of quick credit to many times its volume. The whole mass of this money, in both metals, nearly equal to each other in value, utility, and power, was employed in promoting the growth of business which we have noticed.

When considering the question of the comparative utility of two coin standards, one in one metal, the other embracing both metals, we are driven to study the probable consequences of a change so radical as the disuse of either gold or silver as standard money.

If a certain amount of business is to be performed by the use of $3,500,000,000 of money, which has hitherto had the full use of $7,000,000,000, the purchasing power of every dollar in the smaller sum (though not doubled in such case, as many suppose,) will be very much increased, and prices will fall in the exact measure that the purchasing power will rise, the two being equivalent terms.* We cannot now pursue an inquiry as to specific effects from a change of such magnitude, requiring a generation of men for its accomplishment, aggravating inequalities already ugly enough to the student of social science, and intensifying the conflict between capital and labor, where concord is for the advantage of both. The imagination falters before its picture of the scene during and after the experiment, and the instinct of humanity revolts at the thought of the possible consequences of reducing mankind in this age to the use of a smaller sum of money *per capita* than was possessed in the middle ages.

Silver, when no longer legal tender, can but imperfectly perform the functions of money. Not a valuator, nor tenderable in payment of debts, it can be only a convenient form of exchangeable merchandise, liable to frequent and hurtful changes in gold value. The quality of

* The advocates of the gold standard, admitting that the purchasing power, now diffused in the sum of both metals, will be concentrated in the smaller sum of one metal, and that prices will fall correspondingly, yet say that if all prices fall in equal measure for labor and the products of labor of every kind and everywhere, the relative position of every one will be as it is now; that if the cost of living shall decline one-third, then two-thirds the former wages will provide the same amount and kind of comforts as before. Granting this to be true, we cannot suppose it possible that any equitable relation of prices could be preserved through the long process of decline, or that circumstances of great disaster could be averted, as under existing obligations of debtor and creditor, in fixed annuities, etc.

money cannot be imparted by inherent or commercial value. It is the act or prerogative of law which vests in coin the powers and functions of money, as it has vested the same in paper, of no appreciable value except as a bill of credit.

It is well said that "two money standards, or units of equal value in different metals, cannot be made to coexist by the force of local law"; that "one of them will be worth more as bullion than its money value in relation to the other, and the metal overvalued by the law will remain in use while the undervalued one will be exported as bullion."

This statement is true, as shown in our experience of the undervaluation of gold down to 1834, when it was expelled, and of standard silver from 1834 to 1873, when in turn it disappeared, under our ill-adjusted bi-metallic system. But it is true with qualifications. The qualifying conditions which deny its absolute and invariable truth appear in the experience of Europe before 1873.* There the double standard or unit of value in two metals did exist together harmoniously in the States of the Latin Union and other countries for many years.

While the massing of one metal and the other at different money centres was largely determined by special circumstances and local laws, their relative value was essentially preserved as long as the balance created by the several laws was undisturbed.

* The statement that, under bi-metallic laws, the undervalued metal will be exported, finds an exception to its general truth in the present condition of France, Belgium, and Switzerland. By their laws an ounce of gold is worth fifteen and one-half ounces of silver, both standard money, and their money unit is expressed in both metals by the franc and its multiples. Compared with the bullion market in London or Paris the gold money is undervalued (in silver) by more than ten per cent. According to the rule all the gold in those countries should leave them, and silver flow in to replace it. It does not so occur. On the contrary, the proportion of gold in the visible money of those countries has recently increased, and the silver has diminished. The explanation of this fact, exceptional to a rule almost axiomatic, is worthy of notice by those of our countrymen who enthusiastically cite the fact as a reason for the prompt restoration of the bi-metallic system here. The States mentioned, especially France, are creditor countries, having much wealth loaned abroad. They are remarkable for excellence in manufactures, industry, private economy, and a constant trade balance in their favor. Their foreign income exceeds their foreign outgoes, and the balance comes in gold or its equivalent. They have ample reserves of gold besides their store of silver. Coin is well distributed among the people. Quite opposite conditions exist here. At times for a year or two our exports exceed our imports, but always there is a heavier balance of interest to pay abroad. Ours is a debtor country. Except some $30,000,000 in subsidiary silver, we have no circulating coin, and are on the eve of resuming specie payment. All our circumstances favor the ready operation of the rule that, if we had bi-metallism and undervalued gold, it would leave us forthwith, certainly at our old ratio of value, sixteen to one.

We are led to these positions: —

It is necessary to the prosperity and welfare of mankind that both gold and silver shall continue to be used with full power as money.

To this end a fixed relation of value between gold and silver must be established by legislation.

The legislation of different countries, as now directed, tends to defeat that object, rather than to secure it.

The concurrent legislation of a controlling number and power of all commercial nations is the supreme necessity of the time.

When the necessity shall be convincingly shown, as it will be by experience, however persuasion and argument may now fail, we may believe that the way to the legislation will be opened.

The object sought may be formulated in these terms: A bi-metallic money system, common to all commercial nations which shall establish a relation of value between gold and silver, not subject to variation, permanent for the term stated in the international agreement, and that shall afford employment as money to all the silver and gold offered for it, by unlimited coinage of both metals, free to all owners of bullion.

A strong argument against the proposition for international bi-metallism rests upon the assumed truth of the assertion that a fixed relation of value between gold and silver cannot be preserved by legislation. If the assertion be true, it ends the discussion; for in the supposed power of legislation to establish and hold a constant ratio of value lies the merit of the bi-metallic plan. Moreover, it claims that the constancy of money value to one legal ratio will control and hold the bullion value of silver and gold to a constancy of ratio substantially equal to that fixed for money.

The proposition contemplates that, by the concurrent law of nations, a silver coin will perform any function of money for which the same denomination of coin in gold is competent, — i. e., that the gold and the silver coin of one denomination will be perfect equivalents as money for the payment of debts and all other uses of money; also, through the provision for the unlimited free coinage of both metals, that all gold and silver bullion shall be convertible, at the will of its owners, into this equal money, and therefore must bear the same relation of value as the coined money, excepting a possible difference in mint charges. The statement of the terms of the proposition for the law is conclusive as to its effects in operation. The result is inevitable so far as market value or price is concerned, aside from questions of convenience or special use not depending on value. This is the truly philosophic admission of Dr. Soetbeer, one of the greatest and most scientific of the advocates of the gold standard, whose influence on

the monetary legislation of Germany has been so potent. He wrote within the past year: "If all commercial States, without exception, in law and in practice adopt and maintain the bi-metallic standard at one ratio (say fifteen and one-half to one) for their entire coinage, with unconditional freedom of coinage of both metals, it cannot be denied that in such case, for the present, and probably for a long period to come, a permanent and stable relation between gold and silver would be secured."

One other objection urged against the practicability of a stable rela tion of value between gold and silver should be noticed because of its seeming reasonableness and the importance ascribed to it, though the objection could avail nothing against the inevitable.

The objection is founded upon the much-abused idea of the "cost of production," actual and relative, of gold and silver. The influence of cost of production on prices, as commonly estimated, even of ordinary marketable commodities, is in great part imaginary and fallacious. The cost in the past of producing what now exists has nothing whatever to do with its price to-day. The price of a commodity may be influenced in some degree by the estimated cost of producing a like commodity for future supply, but in chief the price is determined at any given time by the relation of its supply to the demand for it, irrespective of cost.*

Gold and silver are not articles of consumption in the ordinary sense. They are almost imperishable. Yet their value in relation to other values is subject to the same law of regulation by supply and demand. The value of the whole stock controls the value of each ounce in that stock, and each new ounce, on the instant of its production, partakes of the value of the whole stock of the same metal, whatever may have been the cost of producing it. It cannot have any greater or lesser price.

* The course of prices of raw cotton during and since our late war affords a good illustration of the truth that supply and demand, or relative production and consumption, in quantity, are the real factors in making price without regard to past cost of production and with very little thought of cost in the future. The same cotton which was worth twelve cents per pound in 1861 was worth twenty to thirty cents in 1862, twenty-five to fifty cents in 1863, and forty to seventy cents in 1864, — all gold prices. Scarcity, and not cost of production, caused the rise of prices, the demand far exceeding the supply. In 1867 the average cost to planters of producing the American crop that year was officially stated to exceed twenty-five cents per pound currency. The price paid to planters for the first half of that crop was less than fifteen cents. The latter half sold for nearly twice as much. What had cost of production to do with either price?

The only effect on price properly attributable at any time to the cost of production is that measure of it, always remote, which is manifested in the increase or diminution of production which affects the relation of supply and demand in the future. As with cotton, so with iron and all other commercial commodities, those that perish with the using, and yet more those that perish unused when not sold in time for consumption.

The purchasing power (or price) of all money is distributed through both metals at the existing ratio. Purchasing power varies, but only as the quantity of money varies in relation to the volume of business done with it — subject, also, to the activity or slowness of the money movement. Variations in the relative proportions of silver and gold would not change the aggregate of purchasing power so long as the sum of both metals and their relative power remained the same. Increase in the sum of both, without corresponding increase in the use for money, would lower the purchasing power, whether the increase was in one metal or both, and *vice versa* with diminution. Hence the greater stability in the average value of both metals than in either gold or silver during the long course of years prior to 1873, which has been remarked by Professor Jevons and other eminent writers on money.

It was legislation toward the disuse of silver which determined its great depreciation since 1873. Whatever tendency there may be of either metal to decline will be from the increased proportion which the sum of that metal shall bear to the demand for its use, and not at all from any change in the cost of its production.

The stock of money gold is about $3,800,000,000; of money silver, $3,400,000,000. The yearly production is, of gold, $96,000,000, and of silver, $72,000,000, of which, let us say, $93,000,000 gold and $62,000,000 silver — 2.45 per cent. of gold and 1.82 per cent. of silver, are the respective yearly additions to the money stock — less the unknown yearly losses from that stock. The stock of gold (money) is nearly twelve per cent. more than of silver, or one hundred per cent. more if we leave the Oriental countries out of the account, and is increasing by about one-half of one per cent. of the whole stock, yearly, faster than silver, while losing less by abrasion and otherwise. If the value of the two metals was equally supported,— in other words, if the process of demonetization was not working against silver to lessen the demand for its use, gold would be the metal to depreciate; yet, in fact, silver declines because of the legislation against it.*

* During the decade 1851-60, when gold was pouring into Europe at its highest yearly rate, simultaneously with an enormous drain of silver to the East, the average appreciation of silver (or decline in gold) was .9 per cent. This nine-tenths of one per cent. was the measure of differential effect from the production of $1,216,000,000 gold and $452,000,000 silver, coupled with the accidental difference in demand for them in that period. Of that $1,216,000,000 gold, probably one-half, from the surface washings of the richer placers, was produced at less cost per ounce than twenty-five per cent. of the value acquired on the instant of its production, reckoning the value of labor at its highest wages in other occupations. Its low cost had no effect to diminish its price.

The respective proportions of gold and silver produced, and the ratio of bullion value, at the dates named, were as follows:—

Finally, the argument from cost of production as against bi-metallism appears in its own inconsequence, when we remember that the yearly production of silver adds not more than one to one and one-half per cent. to the world's stock of money silver, and that a variation in *the cost* of this yearly fraction would be infinitesimal upon the value of the whole stock.

The two objections to the proposed international adoption of bi-metallism, that it would fail to secure its object, and that based on cost of production, may be dismissed as unavailing.

While the project for a general international monetary convention has been warmly recommended by some of the best modern teachers of the science of money, other writers have opposed it as impracticable, and to be abortive if attempted.

There are practical reasons against it.

States participating in such a convention must be represented by men of character and position to command the confidence of their respective governments and the respect of their associates. Their presence would signify, more or less, an assent to the common objects. Some of the great powers may well refuse to be committed in advance to a scheme which, when developed, they may disapprove, or, approving the object, of which the means of accomplishment may be unacceptable. The proceedings of such a parliament of nations must be more or less public, though requiring the free discussion of questions of domestic and foreign policy of great delicacy, if conflicting views are to be reconciled, and diversity is to become unity of policy; the publicity inviting criticism and opposition, and, possibly, embarrassments to home governments.

It seems indisputable, that concurrent legislation of the bi-metallic system and free coinage by certain of the commercial nations would control the monetary usage of all Europe and America, and establish the system of the world. Such a monetary union, under treaty obligations, between the States of the present Latin Union, Great Britain, and the United States, would be supreme in its influence. The bi-metallic system is now the law of the Latin Union, but with a serious departure from its former potent terms, the cessation of silver coinage. The future value of the standard silver now held in those States, and of the many times greater amount of domestic and foreign debt there

Time.	Gold, per cent.	Silver, per cent.	Rates of value.
1800,	28.5	71.5	1 to 15.61
1846,	52.3	47.7	15.66
1851–60,	72.9	27.1	15.35
1876–77	57.1	42.9	17.38

payable in silver, is exposed to the influences, good or ill, which may flow from the policy in the future, whether that be of "expectancy," as now, remonetization and free coinage, or complete demonetization of silver. The benefit to those States from a permanent restoration of the relations of value existing prior to 1873 is not doubtful.

British state policy is slow of change, and always awaits sufficient reason. But British statesmen do not shrink from change when demanded for the prosperity of the great business interests of the British people. We, who are studying the great economic problem of the day, must discover, if we can, the relative value of the gold standard and bi-metallism to each nation as to the whole community of nations. The gold standard has been coincident with the great material prosperity of Great Britain since 1816. Some writers have assumed that the standard was the foundation cause of the prosperity. Others, including eminent statesmen and economists, do not so belittle the real forces which, from the days of the Commonwealth, and especially since the Napoleonic wars, during which they were quickened and multiplied, have driven the progress of their country in the accumulation of wealth and wealth-producing power. It has been argued, unanswerably, I believe, by some of the latter that British power, industry, and interests have thriven and grown in spite of, rather than because of, the gold standard; and that the real causes of progress would have accomplished more if their money system had been assimilated to that of France. Be that as it may be of the past, the future may demand a different system. The report to Parliament from the select committee on the depreciation of silver, 1876, is a rich collection of statistical and other testimony touching the effects as well as causes of the fall in silver on British and other trade and exchanges. It was beyond the province of the committee to propose remedial or other measures. The facts cited could not fail, however, to show the ill effects of the demonetization of silver since 1873 upon British trade, manufactures, and exchanges. France and other continental nations would suffer great loss in the adoption of the gold standard from the depreciation of their silver. England, on the contrary, would suffer no loss, but in many ways would gain from remonetizing silver in common with other nations.

As British commerce is the largest, so is Great Britain most concerned in whatever shall promote or destroy commerce, or shall increase or lessen the ability of other countries to buy and consume her productions, and continue to pay the great annual tribute of interest-money due from them to her people. The condition of her Eastern empire alone may decide her in favor of what is so important to that empire, the restored value of silver.

We shall not mistake in assuming the assent of our government and people to an international agreement for bi-metallic money.

If we may assume that the best interests of the States of the Latin Union, the United States and Great Britain are in one direction, and that the concurrent action of these powers by treaty would definitely establish the bi-metallic system throughout Christendom, including a fixed relation of value between gold and silver, and free coinage of both metals, then such concurrent action should be sought without delay. The usual way to international agreements is by diplomacy, through the department of foreign affairs of the several governments, and under their treaty-making powers. This is the best if not the only practical way to attain this object; to ascertain what can be done; and its facilities commend its use if an attempt is to be made for international treaties to fix a common relation of value at which gold and silver shall be made standard coin, as for any other commercial treaty.

Our opening question was of the better coin standard for all nations. Now, what is expedient for our own country?

By the existing law it is the duty of the Secretary of the Treasury to make provision of money wherewith to redeem all United States Treasury notes that shall be presented for redemption on and after January 1, 1879. To a certain extent, and by its operation upon the obligations of contracts, this law makes a pledge of the public faith that it shall be executed. Its execution will restore specie payments. As the coinage laws now stand, the money of redemption must be gold. An effort will be made at the approaching session of Congress to secure the enactment of a law to re-establish the bi-metallic coinage as it nominally was prior to the coinage act of 1873.

Should this be done, all debtors, including the government, in the absence of specific promise in the contract, will have choice of the legal-tender dollars, gold, silver, or greenback, with which they will pay their debts. Paper dollars will then be worth the same as the coin dollars with which they will be redeemable, which then will be of silver. Then, the legal value of gold and silver dollars being in the ratio of one to sixteen, an undervaluation of gold by seven to eight per cent. compared with present bullion values in Europe, and supposing bullion values to remain as now, a premium of over seven per cent. will be offered for the export of gold, and our whole currency will consist of silver and notes redeemable in silver.

There is not time now to obtain international adoption of bi-metallic money before the resumption act must take effect. The alternative is redemption with gold, as the law stands, or with silver, which the restoration of the old bi-metallic law would give us.

Let us suppose that the decision shall be to adhere to the gold standard until the bi-metallic standard shall be adopted by international agreement,—what will be the consequences?

All of our currency will be brought to gold value and power—good abroad as at home. Private credit will be strengthened. Confidence, so long lost or impaired, the element essential to activity and prosperity, will quickly return upon the resumption of specie payments in gold. After a few months, in which the permanence of the resumption will be tested, the average of prices, lately depressed by the stagnation which is the effect of want of confidence, will probably advance under a revival of business, the proper effect of resumption;* except that the cost of living may be cheapened, as it ought to be, in proportion to the prices of labor and manufactures.

Under gold resumption no question can arise as to the kind of dollar to be paid on contracts of debt, public or private. After gold resumption we shall be in position to adopt bi-metallism in concurrence with other nations, without difficulty and under most favorable conditions, if then it shall seem desirable.

No citizen of the United States, reasonably proud of his country, and conscious of her credit and resources, will admit her inability to have and maintain the gold standard, if it shall be for our best interests, even of those who advocate the adoption of the bi-metallic system independently of other nations, from a conviction that it is the wisest and best policy.

The present attitude of the bi-metallic nations of continental Europe on the Silver Question is said to be "one of expectancy." They defer the decision of their own complete demonetization of silver for further events, and the chief of these is looked for from this country. They have been led to believe that the Bland bill, or one like it in effect, would become the law of our land. They count upon an American demand for their surplus silver, whether to load it upon us and effect their own escape from its burthen, or under favor of its aid in restoring value to silver, to resume their own former policy, is not disclosed.

* It has been said that gold resumption will favor creditors and wrong debtors. If true, it would not change the duty. But who are creditors and who debtors? The great body of wages-earning people in employment are always creditors; few are debtors on a struck balance. They own a thousand million dollars of the active capital of the country, which is loaned through savings banks, trust companies, and other agencies. The great debtor class consists chiefly of speculators who keep up the cry for cheap money. Again, gold payments will not injure the debtor except by causing lower prices for the commodities which he has to sell to meet his payments, and prices may rise instead of falling, upon resumption, as happened in England after 1821, and here after 1842 and 1857. Resumption will raise every man's paper dollars to gold dollars without cost to him, and may make them more plenty soon after.

It is suspicious when we see European advocates of the gold standard urging upon the United States the adoption of the silver standard, and suggests the wish to make our country the market for what they would discard.

Let us hope that Congress will not condemn us alone of all the western nations to the use of another depreciated currency, though it be of silver, nor issue a decree of banishment against gold so long as that alone is the international money of the world.

Now, what will be the consequences of the alternative, the adoption of the bi-metallic coinage, practically a silver standard for the United States?

In the absence of visible effort toward an international bi-metallic standard, we must assume that European nations having the gold standard will keep it; that the drift of others will be toward the same, as it has been since 1873; and the present surplus of silver will increase by further demonetization and increasing production. Useful as this surplus silver would be, and inconsiderable as its sum is in the whole standard money of Europe, if still fully employed as money, it becomes idle merchandise of uncertain value for which the best markets must be sought—a sort of dead weight to be carried—when discarded as money.

Our policy ought to be adapted to the probable condition in Europe; it must be, to avoid loss and trouble.

Gold and silver dollars as coequal legal tender must have a legal relation of value the one to the other.

It is proposed that the new law shall restore the old dollar of 412.5 grains of standard silver, and the old ratio, sixteen to one. At that ratio or any other which shall undervalue the gold dollar even one per cent. compared with the rates of value in the bullion markets of Europe, a premium will be offered for the export of our gold to Europe, and the same premium (or profit) for the importation of silver. At the current gold price of bar silver in London, say 54¼d. per ounce, the ratio sixteen to one here would offer about seven per cent. profit on the export of gold dollars.

There are two classes of advocates of the double, or silver standard, both demanding unlimited tender of silver. One of them proposes that the silver coinage shall be exclusively on government account, and limited in amount upon a mistaken idea that the limitation of issue can overcome the difference in the market value of the metals, and hold the gold and silver dollars in use at the legal ratio; while the other class, knowing the impotency of limitation of amount of silver to preserve its value under the provision for unlimited tender, boldly proposes the free coinage of silver equally with gold, regardless

of the legislation in other countries. The latter class profess an earnest belief that the demand for silver in the United States upon resumption of specie payments and the practical exclusion of gold, which they admit will occur for a time, will absorb the surplus silver of Europe and the annual production not required for the Eastern trade, so as to restore in Europe the old ratio of fifteen and a half to one, which, offering three per cent. more for silver than our ratio, sixteen to one, would, in turn, reverse the metallic current, sending silver to Europe and returning our gold.

It cannot be supposed that a coinage of silver dollars, limited as proposed by one class, could have any effect upon the bullion values in Europe. This form of proposition must, therefore, suppose the government to issue coin as legal tender much depreciated below its nominal value, after the fashion of arbitrary rulers in old times, for the profit to be made out of the people. If it also contemplates that the depreciated dollars shall be paid to public creditors, it intends one of the most odious abuses of arbitrary power in ancient times. It would open a temptation to private coinage of dollars, having full value in weight and fineness, in fraud of the government, but to the rich profit of the false coiners. It would lose the most beneficent feature of the true bi-metallic policy, the free coinage of both metals, without which the policy is impracticable, locally or generally. Finally, the proposition, if made practical, would be pregnant with evils and impotent for good.

The broad and bold proposition for unlimited issue and free coinage of standard silver would be justified if its assumption of effects could be demonstrated. Its merit depends upon its assumed power to deplete Europe of its surplus silver, and thereby restore the old European ratio of value.

Now, what sum of silver can fairly be accounted as surplus in Europe for which a market elsewhere is, and will be, sought, under the present aspect of monetary affairs, and what sum of silver can the United States employ as standard money in circulation and reserves in addition to the paper money then to be redeemable in silver, excluding gold?

The present aspect is of continued demonetization of silver in Europe. Upon the hypothesis that France and the other States of the Latin Union will proceed gradually to adopt the gold standard, Europe can spare $700,000,000 out of its present stock of standard silver, especially if receiving gold in exchange for it, and then retain an ample stock of subsidiary silver. But the proposition contemplates that our demand will arrest the demonetization of silver and restore it to its former value. Granting that our demand shall raise the price

of silver, as long as it shall last, what sum would Europe spare at or under 58d. per ounce, which is three and three-fourths pence, or nearly seven per cent. over the present price?

The evidence is that Germany has at least $100,000,000 for sale, and probably much more, if 58d. can be had. It is believed that the stock of silver that would be sold from the Latin Union at 58d., regardless of the prospects of future advance, exceeds now $200,000,000, much of which in foreign coin and bars is already used to borrow money upon, and not as money itself. Other countries in Europe can spare $100,000,000, and the probability is that so good a price as 58d. would draw large sums of silver from India in exchange for government bills, to the great improvement of London exchange on India.

It seems probable, therefore, that if the demand for the United States should raise the price of silver in London to 58d. it would command at least $400,000,000 of silver for our coinage, if so much could be absorbed in addition to the yearly production. Yet 58d. per ounce would be one and one-half per cent. below our old ratio, and nearly five per cent. below the old French ratio, which is expected to be restored by our demand.

The amount of coin to be retained in our currency after the resumption of specie payments, *i. e.*, in active circulation and reserves, will depend very much upon the manner of arriving at specie payments and other circumstances. Leaving out of question the subsidiary or change coinage, our people will prefer the use of paper to the silver which the paper represents, for convenience and cheapness. Gold may remain only at a premium as now, but it will remain as indispensable to transactions of trade and of government. The Supreme Court of the United States has decided in several cases that contracts for payment of specified kinds of money or commodities are valid and can be enforced.* Congress, with the approval of the President, can make the silver dollar a legal tender, but it cannot deny the right to make contracts for specific performance, and gold contracts are necessary in some departments of business. Therefore, with or without the bi-metallic law, gold in large sums will remain, and doubtless will be countable in reserves of banks and the Treasury.

It is not easy to conceive how so much as $200,000,000 of standard silver can be got into all uses in this country, unless the paper currency shall be abolished.

While admitting that the proposition to restore the bi-metallic coinage and ratio of 1870 is good, if the effect shall be, as assumed, to absorb the surplus silver of Europe so far as to raise the bullion value

* Bronson *vs.* Rodes, 7 Wallace, 229; Trebilcock *vs.* Wilson *et ux.*, 12 Wallace, 687.

there to its former ratio,—fifteen and a half to one,—we are compelled to say, upon all the evidences of fact and probability, that the assumption is too violent and cannot be sustained. The maximum of our demand could not relieve Europe of its present redundancy, and would not equal one-half of the sum that may become surplus. Any considerable excess remaining would forbid the recovery of the old ratio. The yearly production of silver can now supply an export of $25,000,000 to the East, $10,000,000 to manufacturers, and $40,000,000 to the available money silver.

The opening of our mints to the free coinage of standard silver would, doubtless, advance the price of this metal in some degree and for some time; but it would require the resolute purpose and effort of France and other nations to carry its value up to the old ratio of fifteen and a half to one. These are not indicated. The effects of silver remonetization by the United States acting independently, relied upon by its advocates and assumed as the basis of their proposition, are not reasonably to be expected. The real effect may be, on the contrary, to relieve the markets of Europe so far as to encourage further demonetization by alleviating their loss in depreciation.

The proposition to restore the old silver dollar to full tender and coinage presents other considerations when once it is conceded that its restoration by law cannot restore its old relation of value to gold. It is then a depreciated money.

The honesty, public or private, which has no better foundation than expediency, is not very trustworthy; yet "honesty is the best policy." In modern times nations cannot afford to be dishonest. Though above the reach of all statute law but their own, and that changeable at will, they are bound by reasons of self-interest, as well as by honor and dignity, to a scrupulous observance of their pecuniary obligations in the spirit of their contracts, especially toward creditors who cannot have personal knowledge of the local laws authorizing the contracts. For a nation to borrow money under an artifice, technically within the law, but unknown to the lenders, which shall disappoint the lenders as to terms of payment to their injury, is to obtain money under false pretences.

Early in the civil war, Congress, with reluctance and many misgivings, enacted the law which made Treasury notes "lawful money" and legal tender for all debts, public and private, except for duties on imports and interest on the public debt. It was the first time that anything but gold and silver coin had been made a legal tender in the United States since the adoption of the federal Constitution. "The legal-tender law," as termed *par excellence* in distinction from all other laws of money tender, impaired the obligations of contracts amounting

to many hundred million dollars; yet the Supreme Court of the United States, by a majority of the judges, held it to be constitutional and valid, even in its *ex post facto* operation. The decision established as a principle of law, that a contract to pay "dollars," of which the kind is not specified, intends any kind of dollars known to the law as legal tender at the time of the maturity of the contract, or of payment, at the option of the debtor, irrespective of the law of tender when the contract was made, and regardless of the obvious intent of the parties when making the contract.*

If Congress was competent, as has been decided, to enact laws enabling debtors to discharge their obligations, made when the law recognized no dollars except of gold and silver, by payment with certificates of debt worth when tendered less than one-half the value of the coin dollars intended in the promise, its competency to enact any other law in its discretion touching legal-tender currency cannot well be denied.

Its power to make gold and silver coin a legal tender has been exercised from 1792 to 1873, and the question of its restoring the old silver dollar to the coinage and legal-tender money is one of expediency, not at all of power.

If it be done, we shall then have both kinds of the dollar which were comprehended in the "coin of the present standard value" mentioned in the act of July 14, 1870,† and there is no apparent reason why all contracts of debt, public and private, payable in *coin* of the standard

* The legal-tender law was passed under the pressure of a supposed necessity, with good and patriotic intention. It was, nevertheless, a terrible mistake, adding at least one year to the duration of the war and more than $2,000,000,000 to its public cost and a vast but unknown sum to its private cost, besides the far greater sacrifice of many thousand lives North and South. It brought upon us after the war the evil consequences of the greenback system, which historians will describe as of awful grandeur. Do not say this is nothing to the present purpose. It is indeed, if we are upon the brink of another decision, in regard to which honest and sincere men differ as they did in 1862, when the pressure of deluded popular opinion again utters its appeal, and when another mistake, this time beyond repair, may work great mischief.

More to the present purpose is the legal-tender act as a precedent in legislation.

† The act of July 14, 1870, to provide for refunding the public debt, says of the bonds authorized by it that they shall be redeemable and their interest payable "in coin of the present standard value." It has been so expressed upon the bonds of the several series issued. Until the coinage act of 1873 there were two kinds of standard dollar,—the silver one of 412.5 grains, and the gold one of 25.8 grains, both nine-tenths fine,—of which the silver dollar did not actually exist, because, being worth as bullion three per cent. more than the gold dollar, its coinage could not be afforded by any one, and the few dollars that had been coined after 1834 were melted down or kept as curiosities. In 1873 the silver dollar, which had only a nominal existence after 1834, was abolished by law. Since the coinage act of 1873 became law the gold dollar of 25.8 grains has been the only one of the coin standard of 1870, or that can be tendered in payment of coin debts payable according to that standard.

of 1870, will not be legally dischargeable with silver dollars or gold dollars, at the option of the debtor.

If such is the fact, let us not shirk it, nor attempt to deceive ourselves or the holders of United States bonds with delusive representations, nor cowardly hide the truth of any future probabilities.

The legal-tender laws of 1862–63 made provision for funding the Treasury notes in 5-20 bonds. All these, and all other national bonds issued before, during, and after the war, until the act of July 14, 1870, — except bonds expressly made payable in currency, — "express on their face the promise of the government to pay a certain amount of *dollars*, with interest, at the rate stated, without, in any case, specifying what kind of dollars are intended thereby, or in what money, whether coin or currency, either the principal or interest is payable."— [*The Public Debt: by W. A. Richardson, Secretary of the Treasury.*]

The Treasury department has always treated every part of the funded debt, not expressly payable in currency, as payable in coin, principal and interest.* At one time there was some clamor that the public debt was, and of right ought to be, payable in greenbacks, as private debts were.

This was set at rest by the "Act to strengthen the public credit" of March 18, 1869, solemnly pledging the faith of the United States "to the payment in coin or its equivalent of all the obligations of the United States bearing interest, known as United States notes, and of all the interest-bearing obligations of the United States, except in cases where the law authorizing the issue of any such obligation has expressly provided that the same may be paid in lawful money or other currency than gold and silver."

All the *coin* transactions of the government since 1834, or soon after, have been in gold. There was no standard silver coin available for use. All coin interest on the public debt, and all maturing bonds, have been paid in gold or its equivalent. The customs revenue has been collected in gold. Since 1834, when the gold dollar was made of less value (as bullion) than the silver dollar, government has been forbidden to pay silver dollars to public creditors; before 1873, by its own economy in paying the cheaper gold (and because the silver dollars did not exist), and since 1873 by the statute.

Never, probably, since 1834, was there a thought in the mind of

* The Supreme Court of the United States (in Bank *vs.* Supervisors, 7 Wallace, 20) said of the Treasury notes or greenbacks: "Every one of them expresses upon its face an engagement of the nation to pay to the bearer a certain sum. The dollar note is an engagement to pay *a dollar*, and the dollar intended is the coined dollar of the United States; a certain quantity in weight and fineness of gold and silver, authenticated as such by the stamp of the government. No other dollar had before been recognized by the legislation of the national government as lawful money."

any member of Congress or officers of the Treasury, in connection with the public debt, that the statute word "coin" meant, or intended to express, any but gold coin, until silver had so far declined as to make the silver dollar of 412.5 grains of much less value than the gold dollar of 25.8 grains, which decline did not occur until after the abolition of the nominal silver dollar by the act of 1873. (The average gold value of bar silver in London, for February and March, 1873, was 59¾d. per ounce, or at the ratio 15.75 to one, which was five and one-half pence per ounce, or ten per cent. higher than it is now.)

While many, perhaps most, citizens believe that Congress has full power to replace the silver standard dollar in the coinage, and that the act, if general and unconditional, would make *all the coin debt of the United States* legally payable with silver money, there are few who urge the restoration of the silver dollar with that object in view; no more, let us hope, than those who in 1869 would have resisted the act to strengthen the public credit.

It is first a question of honor and good faith in the fulfilment of *the promise that was intended to be made and intended to be accepted*, for the payment of *gold* coin; and, second, it is a question of expediency in the choice whether to follow the letter that killeth or the spirit that maketh alive; whether, after thirty-nine years of invariable payment of gold coin, under free option, while gold was three per cent. cheaper than silver, and, after the option has been four years surrendered by Congress, during which silver has fallen ten per cent., now to reclaim the option by exercise of the law-making power, and hereafter tender the depreciated silver to creditors, or continue to pay gold for the public debt.

Whenever the preservation of the public faith has been in question, Congress has not failed to protect it (except by delay) nor the people to approve. Neither will fail now on a fair and full consideration of the subject. If a silver bill is to become law, it will be so framed or conditioned as to protect the obligations of the government. It is in the full confidence of this that the public credit stands unimpaired among the highest in the world. Without it the government cannot hope to continue its favorable negotiations of public loans for redemption of the greenbacks, and refunding the remainder of the six per cent. bonds.

Shall we, then, have the experience with a depreciated greenback currency repeated with a depreciated silver currency, — one currency for the government and another for the people? God forbid!

To bring back again a fair price for labor and cheaper cost of living, with employment for the willing labor and the capital that are now idle, conditions which will attend upon a return of prosperity, these monetary provisions seem to be necessary: —

First; the resumption of specie payments, January 1, 1879, as required by existing law and in obedience to its pledge of public obligation, to the end that confidence may return and fear depart.

And, secondly or coincidently with the first, one of these alternatives as a coinage system; the bi-metallic, if to be secured in co-operation with other nations, so that gold and silver will together and in fixed relation of value constitute the money of the commercial world; or, failing that desirable consummation, a faithful adherence to the existing gold standard, and use of all the subsidiary silver coin that the public commerce may require.

The superior benefits of the bi-metallic system, when made international, are assumed to be undeniable. They are, however, less important for us than for any other of the great commercial nations. We have no Eastern empire for which full-value silver is indispensable to its prosperity, and for the due revenue return to the home government; nor have we already on hand a large and embarrassing currency in depreciating silver; nor have we any condition to hinder the adoption of whatever shall be best for the prosperity of our own people and the honor of our government. It is, however, the parting of the ways. Rarely is the importance of a right choice of such magnitude in its good or ill consequences. From the gold standard a change to the bi-metallic can be made without loss or difficulty whenever found to be expedient.

But our adoption of the bi-metallic standard now and alone, if not followed by similar action by other powers, — as then would be very unlikely, — would make a return to the gold standard, however desirable and necessary then, costly, difficult, and hurtful to all interests, public and private, unless the government should assume the duty of redeeming all the standard silver with gold, as Germany is now doing; a proceeding which, if relieving the people as holders of silver from loss, would put the loss upon them again in the form of taxes, leaving the uncomfortable reflection that the loss had been incurred for the benefit of foreign nations.

To save time and space I have forborne to cite authorities, and now beg to make grateful acknowledgments to all whose thoughts I have appropriated, if any can recognize their own as I have phrased them. Especially are we indebted to Mr. Ernest Seyd and M. Henri Cernuschi, who have done so much to spread among their own and our people a better knowledge of the laws and history of money than was before accessible to any but students and scientists; and to our associate, Horton of Ohio, whose single volume has given us a taste of almost every writer about money since the days of Aristotle.

SAVINGS BANKS.

A Paper read before the American Social Science Association, at Saratoga, Sept. 5, 1877,

BY JNO. P. TOWNSEND, OF NEW YORK CITY.

The proceeds of labor, not otherwise appropriated by the producer, may be converted into capital so that it will produce a revenue without impairing the amount of the original sum; this revenue may, in its turn, be invested with a like result, and the process may be continued, at the will of the owner, and while he is personally engaged in the production of other surplus which he can convert into capital with similar results. Such accumulations, owned by various individuals, tend to produce comfort and pleasure, to encourage education, the arts and sciences, and to the enlightenment of the individual as well as the community where they exist.

A more general distribution of property will, no doubt, tend in a great degree to the extinction of pauperism. The cares which accompany its possession sharpen the mental faculties, educate the owner, and incline to enlarge his moral perception. So manifest had this appeared, that, early in the present century, both at home and abroad, efforts were begun to encourage habits of economy among those who had never enjoyed its fruits, and who had not experienced the benefit of saving for themselves.

The first publication in England (1797) on the subject of Savings Banks is attributed to Jeremy Bentham, in whose plans for the management of paupers he included a system of what he called "Frugality Banks." Among the first persons who interested themselves practically on the subject was a woman, Mrs. Priscilla Wakefield, who was superintendent of a "Friendly Society for the Benefit of Women and Children," which, in 1801, combined with its principal design a bank for savings. Private societies, which received and invested the savings of the laboring poor, were organized and in operation in England, Ireland, and Wales, to the number of seventy-eight, when the first act of Parliament was passed in 1817, which established the system under control of the government. In 1816, Savings Banks were opened in Switzerland. In France, the first institution was founded in Paris, and opened to the public in 1818. To-day they are extended into almost all the states of Europe.

The spirit of philanthropy was displayed early in the history of this country, and found expression in endeavors to fix by law the price of articles of necessity, and the wages of mechanics and laborers; but

further experience taught the law-makers that such regulations were detrimental to the interests of those they desired to serve; afterwards lotteries, with charitable designs, were legalized, and charitable societies for the purpose of protecting and supporting such of their members as might stand in need of assistance by reason of sickness or accident, and for the relief of the widows and orphans of those who might die leaving little or no property for their support.

In 1803, a petition was presented to the legislature of this State, praying that sundry persons might be incorporated into a society, with power to build workshops and purchase materials, for the employment of the poor. The Society of Tammany or Columbian Order, in the city of New York, was incorporated in 1805, as a charitable institution, for the purpose of affording relief to the indigent and distressed members of the association, their widows and orphans, and *others* who may be found proper objects of their charity. This society still exists, but its charities are oftener dispensed to its distressed members and *others* requiring relief in the form of public offices, than to widows and orphans.

In the next decade, many benevolent and charitable societies were organized and incorporated in the New England and Middle States, which served their designated purposes to a limited extent, but all failed to accomplish anything for the permanent well-being of those they intended to benefit; instead of so assisting the beneficiaries that at some future time they would care for themselves, they ministered only to present wants, which were ever recurring and never fully satisfied; with each dispensation the receivers became more dependent, were losing their own self-respect, and in danger of becoming paupers —the disease had been aggravated by improper remedies.

Experience had demonstrated that temporary relief resulted in many cases in entire dependence, while the number of poor, instead of decreasing, was stimulated to increase; no plainer lesson is to be learned from experience than this, as soon as it is known in a community that anything can be had without labor, that people can have soup, fuel, clothing, and shelter without cost, that moment the moral standard of the community is lowered, and once the way is made plain by individuals, societies, or the State, all further efforts on the part of recipients to earn their own living is abandoned, not only for the part gratuitously offered, but all honest work is given up, and ingenious schemes are resorted to, in order to obtain the greatest amount possible, and more time is wasted and labor of a certain kind expended, than, if directed by honest efforts, would comfortably support the degraded person and his family.

Resort was afterwards had to the system to "help others to help

themselves," by teaching the poor to acquire habits of economy and thrift, by laying aside some part of their earnings in the time of prosperity, to provide for the days of adversity, sickness, accident, and old age. In the announcement in 1816 of the intention of several benevolent gentlemen of Boston to apply to the legislature of Massachusetts for an act of incorporation for a "Saving Bank," appeared the following:* "It is not by the alms of the wealthy that the good of the lower classes can be generally promoted. By such donations encouragement is far oftener given to idleness and hypocrisy than aid to suffering worth. He is the most effective benefactor to the poor, who encourages them in habits of industry, sobriety, and frugality."

These were the ideas which inspired the founders of the Savings Bank system on this side of the Atlantic; banks were organized and chartered which were managed by benevolent persons, in some States, in the way that suited their notions of prudence and safety; in others, they were limited by law to what was considered the best class of securities, which were particularly specified in the charter of each bank. While the number and amount of deposits was small in the aggregate, little difficulty was experienced in investing the money safely and wisely; but when the system became more popular, as it did when good management and its fruits were exhibited, the deposits increased so rapidly that trustees, who before were limited, were further authorized to invest the funds not only in bonds and mortgages, United States and State stocks, but in bonds of counties, cities, towns, and villages of the States in which the banks were located, and in some quarters, notably in New England, authority was given to invest in first-mortgage bonds of railroads chartered by the State in which the banks were located, and in the stock of their State or national banks. They were also permitted to have on deposit in the same banks any sum up to twenty per cent. of the total deposit of each savings bank, and if the money held by the savings bank could not be *conveniently* invested in any or all of the modes before named, it might loan a third part of the same on personal security with two sureties; *i. e.*, the bank might discount indorsed notes, not as is the custom in banks of discount for thirty, sixty, or ninety days, but they were authorized to loan their funds on notes to run for twelve months.

The operation of such loans is stated by the bank commissioners of Massachusetts, in 1861, to be precisely this: "that a merchant, having culled out of his 'bills receivable' all such notes as he can get discounted at bank, carries the remainder, which are either too long or too poor to be negotiated in the regular way, to a savings bank, where

* Key's History of Savings Banks, Vol. 1, p. 39.

he gets a considerable loan upon them. He is enabled by this process not only to expand his own credit to an unwarrantable degree, but also to indulge his customers in longer credits than it is either well for them to have, or for him to give." They also say in the same report, "We recall an instance last summer, when exchange in Western cities ruled at ten per cent. and upwards, where all the collaterals held by a certain savings bank near Boston for the notes of a respectable mercantile house were payable in Illinois, Wisconsin, and other Western States, of which not a single piece could then have been discounted at a bank in State Street. It is true that they were taken at a margin, and this is usually the case, but they ought not to have been taken by a savings bank at all."

Loans on these securities in New England banks amount at the present time to $58,000,000, or 13 per cent. of the total assets, Vermont being the largest, or 23 per cent. It is idle to say that losses on these have not been large, when it is well known that renewals can be so readily obtained if the interest is paid; perhaps it would be more proper to say that the losses already made have not been charged off, and what the future has in store for commercial obligations, one can surmise when daily complaints are heard of the dulness and lack of profit in trade, and when the prospect of improvement seems as far off as it did four years ago. In the New England States (except Massachusetts and Rhode Island) railroad stocks as well as bonds, are among the investments held under the charter clauses requiring deposits to be used and improved to the best advantage.

The result of such investments is shown in the statements by some of the banks owning them, in a diminution of assets and a consequent reduction of dividends, and the tendency is to a further decrease in the not distant future.

The speculative mania which seized the country during the late war of the rebellion, speedily reached the Savings Banks. Previous to 1862 they had been successfully managed, and their reputation was good; failures amongst bona-fide banks for savings were comparatively unknown, and it was a mark of respectability to be connected with one. Here was a new field for the speculators, but in order to control the management for private ends, it was necessary, as a rule, to create new banks; for let it be said to their credit, the trustees of most of the old ones declined to abuse their trust for the private benefit of anybody. With friends in the legislature, it was not a difficult task to obtain new charters; true, no more banks were really needed, but how specious their pleas; the pay which the working classes were receiving had been increased, the prudent amongst them were not spending in proportion to their increased earnings, and they ought to

have places of deposit for their surplus; every neighborhood where any considerable number of work people were employed, or lived, should have a Savings Bank; they were a necessity, already largely appreciated, and their further use should be extended. In this State, where 74 were in operation in 1862, 158 were at work in 1875. In Massachusetts 93 were doing business in 1862 and in 1875, 180 reported. In the city of New York 21 were in existence in 1862, and in 1874, 44 were doing business; of these last all had special charters, the provisions of the most of which might be termed "liberal"; that is, the trustees were at liberty to do many things in an agreeable way for the parties in interest. Expensive offices were hired and fitted up with the funds first deposited, high rates of interest were promised and paid out of the deposits when necessary to make up deficiencies; extravagant salaries were given from the beginning to officers and clerks, particularly to the former; loans were made on unproductive as well as improved real estate for a large part of the purchase money; and to such an extent was this carried on, both in Massachusetts and New York, that it is quite safe to say that the speculative price which this class of property reached down to 1870, was largely due to the facilities offered by Savings Banks and Life Insurance Companies. In practice, the value of real property was largely determined by the amount these institutions would loan on it; every sale made a new valuation, and assessors were always ready to keep pace with the institutions, as it was desirable to deep down the tax-rate to hide extravagant expenditures by the public authorities.

In Massachusetts these loans rose between 1865 and 1876, from $15,000,000 to $121,000,000, while the total deposits for the same period rose from $60,000,000 to $243,000,000, showing an increase in the proportion of deposits invested in mortgages from one-quarter to one-half, and at the end of eleven years the mortgage loans were more than double the entire deposits of the first period. In 1868 the banks of that State held about $25,000,000 in United States bonds; in 1876 they held less than $12,000,000. No doubt the conversion of United States bonds into mortgages, for that was the practical operation, enabled them to secure the premium on the stocks sold, which was also invested in mortgages, by which the greed for dividends was satisfied at the expense of security. In this way have Savings Banks been permitted to contribute towards the inflation of prices which has run riot in the land, the ill effects of which they have already begun to experience, for on account of the non-payment of interest, taxes, or assessments, they have been compelled to foreclose and buy in nearly $2,000,000 worth of real estate in Massachusetts, and nearly as much in New York. Out of a total deposit in the six New England States

of $438,000,000, more than one-half, or $228,000,000 is invested in mortgages, Connecticut having the largest amount, or 68 per cent. of the total assets. New Jersey has 45 per cent. invested in a similar manner. Some of the New England States invest in second as well as in first mortgages.

First mortgages on land and buildings, when the amount loaned did not exceed fifty per cent. of the market value, have been considered to be among the best investments of savings-bank funds, and one-half, but in some States even more, of the entire deposits have been thus employed; but the inflated prices to which this kind of property has reached have made the security of these loans in many cases extremely doubtful, and in others decidedly unsafe. If properly placed, on a low valuation, and not more than forty per cent. is advanced on productive property in the vicinity of the bank making the loan, and if evidence is produced every year, certifying that no unpaid taxes or assessments are on record against the property, one-quarter of the deposits—not more—might thus be safely loaned. It is impossible to realize quickly on such security in a time of trial, and this amount is as much as prudent trustees should consider themselves warranted in taking, notwithstanding the good income which is agreed to be paid. Mortgages on unproductive real estate and buildings are a source of weakness. Vacant lots in cities entail expenses of interest, taxes, and assessments on their owners to such an extent, that the mortgagee is often obliged to take the title under foreclosure, to protect itself from the tax-gatherer, who really holds the first lien; this not only adds to the bank's expenses for taxes, but deprives it of income on the capital invested in the property.

Loans to church corporations on church plots and edifices are also indifferent security; the bonds given with the mortgage are never renewed after one year, which is the length of time for which savings banks take mortgages in this State, and nothing is more discouraging for a society than to raise money to pay interest the benefit of which they do not seem to enjoy; and if a threat of foreclosure is heard when the interest is unpaid, a cry of persecution is apt to be set up; the property, if bought in, is likely to be unsalable for other uses except at a sacrifice, and loss is the usual result. If the present state of things continues for any considerable time, savings banks and life insurance companies will undoubtedly become the owners in fee of a large amount of church property, which they must hold without income, or sell at a great loss. In the State of New York the exhibit is more favorable on this class of loans, which rose from 1865 to 1876 from $23,138,000 to $116,154,000, while the deposits increased from $111,737,000 to $316,677,000; showing an increase in

the proportion of deposits invested in mortgages from one-fifth to three-eighths, and at the end of the eleven years the mortgage loans were only one-tenth more than the total deposits of the first period.

The New York banks were in better condition, also, with respect to United States stocks; for in 1871 they held $48,600,000, and in 1876 they owned $81,586,000, or 23 per cent. of their assets. One institution alone in New York City has added about eight millions to its assets, and now owns more than $15,000,000, estimated at *par value*, or over 50 per cent. of its deposits; showing a commendable gain in the class of securities which are no doubt the best for institutions of this kind, owing to the fact, that they can be more readily converted into money in a time of crisis than any other.

The amount of United States stocks held by banks in other States is comparatively small, New Jersey reporting the most, or 16½ per cent. of the assets; the average for the six New England States being less than five per cent. of their assets, and even the best class of State bonds are abandoned for lower-priced securities. The banks in several of the States conceived the idea of investing in low-priced Southern State bonds, some of them in order to increase the nominal amount of their assets, which had been reduced by other unfortunate investments, and others to get more income on a smaller amount of capital invested.

Interest on these bonds was regularly paid while they were issuing, but when the demand for them was supplied, or, when the aggregate issue became so large that the payment of further interest became burdensome on the people having it to pay, they ceased altogether, and these stocks fell to a nominal price, which, besides causing a loss to the banks in the value of their assets, also deprived them of the income on the amount of capital expended.

The enormous amount to which the indebtedness of counties, cities, towns, and villages has increased of late years is something appalling; the ultimate payment of the principal in many cases is extremely doubtful; the interest alone has already come to be burdensome, and in some cases has ceased entirely; the legality of the bonds has been questioned in many instances; and in the case of two that have come under observation, the towns are contesting the payment of both principal and interest, on the ground that they did not receive value in a certain macadamized road, to pay for which the bonds were issued; not that the road was not actually built, but the quality of the work done, in the estimation of the tax-payers, was below a certain standard. In another case, bonds falling due last winter were unpaid; the town treasurer finally replying, after repeated letters had been sent to him, that no tax levy had been made by the authorities; an officer of a

bank in the town gave it as his opinion, that it would not have been best to impose additional taxes on the people at the time, as they could not well afford to pay more than they had, but next year he thought it would be done. In all these cases, savings banks are owners of the bonds; litigation is expensive and tedious, and judgments, if rendered in favor of the holders, will only order the levying of taxes to pay the debts, while the deferred interest will be more than absorbed in legal expenses. The amount of county, city, town, and village bonds, held by the banks of this State, is more than 21 per cent. of the total assets. In Maine, the amount, including loans on the same, and including also some State bonds, the sum of which is not separately given, is over 32 per cent. of the assets. In New Hampshire, nearly 29 per cent. The total for New England being over 13 per cent., and in New Jersey it is a fraction less than 23 per cent.

Railroad bonds and stocks have an attraction for trustees in the Eastern States which they have not been able to overcome; of the former, in Massachusetts they hold $10,000,000, or four per cent. of the total assets; both in Maine and New Hampshire, 12 per cent. of their assets are invested in railroad securities, and the average for the six States is something above five per cent. Outside of Massachusetts corporation stocks and bonds are owned and loaned upon, hotel company bonds are owned in Rhode Island, vessel property is loaned on in Maine, besides which they own miscellaneous stocks and bonds to the amount of four per cent. of their total assets, on which interest or dividends are not paid.

In Rhode Island they own railroad bonds and stocks, bonds of cities and towns, and take mortgages upon property in almost every part of the United States. National and State bank shares are owned and loaned upon by nearly every savings bank in New England. Massachusetts has $27,000,000, or 11 per cent. of its assets, invested in this way, and the average of all the New England States is eight per cent., besides which they keep money on deposit in the same banks. Trustees do not seem to have realized, that, by such proceedings, they are risking still more money in miscellaneous stocks and bonds, some of which have already defaulted in the payment of interest or dividends, as well as in a certain percentage of past due mercantile and corporation notes, all of which are held by these banks, and that they are also taking the chances of profit or loss in the general business of the country, at a time when almost every sort of trade is being done at a loss or without profit, and that the day may arrive when confidence will be further shaken or lost, and depositors in both savings banks and banks of discount will come for their money in greater numbers

and for greater amounts than has been usual since the last panic disturbed their self-possession.

In such an event, where can the banks resort, without submitting to a much larger shave than would absorb many times over their little imaginary surplus, to get cash on their inflated mortgages and unsalable stocks and bonds with which to pay their clamoring depositors, who had depended on their little hoards to meet just such emergencies? Who can envy the position of trustees in such institutions then? to whom can they go for comfort? who will sympathize with such mistaken administration? or where can the few hundred trustees find refuge from the many thousand anxious depositors asking only for their own, of those they had confided in? Ask the managers of the few savings banks which have already suspended, and from their answers one can readily form ideas to guide him in framing views of the situation, if these suspensions become any more general.

The extravagant amounts of money spent in fine buildings, simply for offices in which to carry on the business of savings banks, is in some cases an outrage on the system; it is not only unwise and unjust, but the example taught to the class of people these institutions were designed to benefit, is unqualifiedly bad; instead of teaching economy and thrift, which must be the rule of every proper savings-bank depositor, they learn, on seeing the palatial architecture of the exterior, the sumptuous and high-priced furniture and fixtures, that the custodians of their funds have no proper ideas of economy in expenditure which should govern those who invest the money of others. In some cases the whole, in others, more than the actual surplus is expended in a bank building; some of these produce a small and others no income whatever. Some of these buildings have cost over $600,000, and several more than half a million each.

The value of a banking-house that had cost a moderate amount could be readily obtained in case of a forced sale; but for one that had cost $600,000, probably not more than one-third could be got; the loss of $400,000 to a bank having liabilities of say $11,000,000 would be a serious one to the depositors, being three-quarters of a year's interest at the present legal rate paid by savings banks in this State, or 3¾ per cent. on the total amount of deposits. The loss of interest on the investment made in the banking-house while the bank remains solvent, is, with taxes and necessary repairs, say $60,000, or more than one-half of one per cent. on the total deposits, for rent alone.

The item of salaries is also one deserving consideration. With the exception of the executive, who devotes the principal part of his time in the institution, attending to the internal management, and who, in connection with the secretary or treasurer, should have charge of the

securities, no other trustee should receive any pay or profit for his services; every other should be willing to devote all the time needed to perform the labor incumbent on him, without hope of pecuniary reward, and solely with a desire to do a beneficent work in the interest of those who have not the ability or the opportunity of doing it for themselves. Trustees do violence to their trust, who, in a bank having less than $9,000,000 deposits, authorize the payment of nearly $14,000 per annum to a single officer, or who pay $22,000 per annum to two officers in a bank having less than $11,000,000 deposits. Such salaries, under such conditions, cannot be too severely condemned.

The qualifications of a trustee should be integrity and capacity; honesty and common-sense will enable any board to discharge their trust in a way that will place them above just criticism; neither do the right men need praise for doing any duty they undertake of their own free will; they only require that feeling of self-approval which every true man experiences in the discharge of obligations.

Some institutions, anxious for deposits, are doing the business of ordinary banks of discounts, by encouraging accounts from business men, small traders, and óthers, agreeing to pay interest on monthly balances, permitting checks at sight, receiving notes and drafts for collection, and buying and selling domestic and foreign exchange; these active accounts, and this sort of business, only adds to the labor of the bank, causes an increase of clerks and expenses for salaries and stationery, with no corresponding profit. Active accounts should be discouraged; that is, those on which deposits and drafts are frequently made. They are in no sense savings; the banks are only thus used as a convenience, and as places of safe deposit; they are really a burden and a tax on the proper customers, at whose expense they are received.

Another abuse to which attention is directed, is the one that permits single deposits of large amounts. These benevolent institutions, designed to encourage the industrious workers, with small incomes, to acquire habits of frugality, are, in some instances, permitting capitalists, in times when pasturage elsewhere is scanity, to use them as places of deposit for large sums.

From an examination by the Labor Bureau of Massachusetts about four years ago,* it was ascertained that out of the whole number of depositors, the representatives of "wage labor" owned only about thirty per cent. of the deposits, and that less than one-tenth of the depositors owned more than one-half of the deposits.

One bank in New York has a single account of $90,000, another in Rhode Island has one of $48,000, one in Connecticut $33,000; and

* David A. Wells at the Cobden Club Dinner, June 28, 1873.

deposits of $5,000 and over have become quite common in all the States. The objections to them are, that the money cannot be invested in first-class securities to earn the ordinary dividends and expenses, and they have induced the purchase of the doubtful and unwise ones before alluded to; they are also a source of danger when money becomes scarce and in demand. At such times the shrewd capitalists are the first to require their funds for more profitable uses, and the savings banks called upon in such an emergency must part with their best and most salable securities, which cannot be replaced in easier times without submitting to considerable losses.

The ambition of trustees to show large deposit aggregates will have a fall when the most available assets have been parted with, and the smaller depositors have caught the infection and begin a run on the bank, which is left with nothing but unavailable mortgages and unsalable securities. The sums received from one individual, in any one year, should never be allowed to exceed five hundred dollars, and single accounts should not be permitted, even to accumulate, beyond a moderate sum, say $2,000; they may be prevented by refusing to pay any interest on the excess above that sum, and to pay the smaller rate on the whole of a large deposit, and not one per cent. more on five hundred dollars of it, as is the custom in many banks; another method that might be suggested, would allow the State to tax all larger deposits at such a rate as would discourage them altogether.

Encouragement might be given to those depositors who have accumulated nearly enough to buy a homestead, on which the bank could take a small mortgage, thus serving itself and the depositor at the same time, by getting rid of a large account and investing the funds of a smaller one.

A desire to increase the assets and bring in new customers has led some institutions to pay a premium for them, in allowing interest on accounts for ten days, and until recently in this State, twenty days longer than the money is in hand. This practice is unfair to those whose money is in possession the first day of the quarter, for their funds must earn dividends both for them and the sharper customer who is making ten days' interest for himself elsewhere, but can at the end of that time, by making the deposit, claim a dividend for the days already passed, and thus make the same capital pay two dividends although it was employed in but one place. It tends to induce slothful habits and laxity in business in those who have nothing to gain by promptness, as the profit is the same whether they get to the bank ten days earlier or later. Large aggregates of money are presented between the first and tenth days of January and July in nearly all the larger institutions of this State, and that clause in the law which was

intended as a benevolent provision, and is permissive to the trustees, is considered by many as a right, and it is deemed a hardship where the practice does not prevail, to be informed that interest will commence only from the first day of the succeeding quarter.

Attention is specially called to the practice of choosing trustees from boards of directors, in banks of discount which have on deposit the available funds and uninvested balances of savings banks. These persons are directly interested in having the sum so deposited as large, and the interest paid for its use as small as possible. Therefore, the interest of the savings bank and the director of the bank of discount are diametrically opposite, and when he is called upon to vote with others upon a question of gain or loss to himself, the temptation for the gain is so demoralizing, that as a rule the savings bank should not run the risk of such a vote.

Directors of a corporation have been known to use their influence, as trustees, to loan the funds of their savings banks in order to bolster up their sinking concerns, thereby causing the ultimate failure of the bank without saving the corporation. In making investments, security should be the primary consideration and income secondary; trustees have no moral right to take risks that men doing business with their own capital could afford to, even within the law. The funds they manage belong to others, who have placed them under their control for safe investment against a future time of need, and they are bound to be so invested, that, as far as human foresight can determine, the principal sum, with whatever interest can be fairly earned, will be returned after reasonable notice.

If errors are committed, let them be on the side of security; clamors for large rates of interest should be unheeded, as they seldom, if ever, proceed from those who have the right to be depositors, but from owners of large accounts who are anxious to increase their incomes; the class whom it is a benevolence to serve, are only too happy to have a moderate increase added to their little capital each half year, and in many cases do not quite understand how their money can be kept securely and returned, virtually on demand, with the addition of any interest whatever.

Securities worth more than par are very desirable as investments on account of their salable value, but the premium paid should never be counted as an asset, but be regarded only as a bonus, given for guarantee, that the bonds are good for their face at maturity, and that the interest will be regularly paid. In case of a forced sale in times of unusual demand for money, it cannot be fully recovered, and if the securities are held until maturity, the face value only will be received.

The question of surplus to meet losses and depreciation is attracting attention in all the States. In the banks of some of them this important item is overlooked; in others, a small percentage accumulated gradually is considered sufficient. In this State ten per cent. has been permitted for some years, estimating all securities at their market value; but this year an amendment to the general law forbids the payment of more than five per cent. interest per annum until the surplus, estimating all securities that are worth it at par value and those of less value at the market price, amounts to fifteen per cent.

The intention of this law is in the right direction, although it is probable that ten per cent. might have been the limit instead of fifteen. After this surplus is secured, extra dividends must be declared as often as once in three years out of the excess, and all accounts should be classified in proportion to the length of time the money has been on deposit, so that those having kept accounts for six months only, should receive a less proportion than others who have had funds on deposit one, two, or three years; for it is evident that the surplus will be earned with undisturbed balances, and that recent accounts will have had no share in making the accumulations.

If this plan is not adopted, the best banks will be overloaded with money three or six months before they declare extra dividends, by persons determined to get a large interest for their capital, and who have not accepted the more moderate rate while the surplus was accumulating, and who, therefore, have no moral right to participate in extra profits which they had no share in earning.

The percentage of expenses to total deposits in any one year should not exceed one-third of one per cent. More than this is waste or extravagance. The average of the banks of Massachusetts has not exceeded this rate in the past forty-two years; those more economically managed do not reach it; the latter is true regarding many banks in other States.

Newly formed institutions should be started with little or no expense. As the trustees are to do a benevolent work, they should commence business without paid assistants, and begin expenses only after they have accumulated funds to meet them.

Too much stress cannot be laid upon the educative character of their work. To quote the ideas of Monsieur A. de Malarce of Paris, in a late number of the "Journal des Débats," who, let it be said, is devoting his talents and time to the extension of the system in France, by which his countrymen, both young and old, are likely to become wiser and better through the habits they are acquiring of truer economy and thrift. He says: "The savings bank is a school which seems to be created for the apprenticeship of industrial business managing. It

teaches man the habit to govern himself, to resist bad or useless impulses, and so aids to build up a sound discretion, which is the first condition of success in undertakings; at the same time it gives him the habit of foresight, by which he can judge the effect of his past acts and calculate his future operations."

"It is the savings bank which has taught the workman how he can become a capitalist, in moderating his consumption below his production, and in amassing the excess called savings in a fruitful place and in complete security; he learns how capital is formed and how it can be at first prudently employed. Yes, thanks to these institutions, our workmen have commenced their economic education; they are learning how by their sole will they can make capital, the raw material of all industrial enterprise; and they are becoming familiar in handling the savings-bank book, with the instrumental part of accounts."

"The role which these banks fill is so well recognized to-day, and it appears of such social importance, that the wisest statesmen of Europe are applying themselves at this moment to propagate them, and they recommend them above all in view of their educating character; they pre-occupy themselves less to accumulate hoards of money, than to form men who are rendered thus apt to utilize all other economic instructions."

The system has nowhere reached its full development; lack of perfect security operates as a serious drawback to their more extensive use by the working classes.

The number of banks now in operation in eight States, which we have been considering, is 639; the number of depositors, 2,188,884; the aggregate of deposits, $785,862,511.*

It will not be inferred from what has been said that the system is a failure in this country. The criticisms which have been made are only with the view of calling attention to what is considered the unsound or improper use of trust funds, and to induce such changes as are considered necessary for the welfare of society, through these noble institutions. Still, there are banks now doing business in every State

* See the table at the end of this paper. Since September, 1877, I do not find anything official in regard to deposits in Massachusetts savings banks, except that aggregate deposits had, on November 1, 1877, increased $1,255,972 from the aggregate given in the text. In New York City, July 1, 1877, they had increased $2,150,764; and in Brooklyn, $1,567,421. The number of depositors also had been *increased* in both these cities: in the former, 7,626; in the latter, 2,599. Returns from the whole State are not yet compiled. Connecticut reports a *decrease* in the aggregate of deposits, and an *increase* of 1,061 in the number of depositors, October 1, 1877. Nothing official comes from New Jersey, but it is understood there has been a falling off both in the aggregate of deposits and the number of depositors. In Maine, there is a decrease of 1,960 in the depositors, and of more than $1,600,000 in deposits. In Massachusetts, depositors have increased 468.

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which have no right to exist; they are snares and pitfalls to the unwary, and they are injuriously affecting the reputation of others which are properly conducted. The reputation of the whole system suffers every time a lifeless concern rises to the surface. Many are still permitted to receive the money of trusting people, who rely on the laws in force, and the watchful care of those in authority over them, for the security of their funds, while it is patent to any one who reads the report of their condition, as presented by the banks themselves, that they are insolvent debtors. The plea, that if permitted to go on receiving deposits, something *may* turn up in the future which will enable them to regain their losses and make good their unwise investments, is puerile; for what can galvanize into life dead-and-gone State bonds, or the stocks and bonds of railroads which have been so copiously watered that the inflation of dropsy has almost burst them asunder, or when will real estate again advance to the nominal price at which it was once quoted and even sold, when paper dollars were of half the value they bear to-day?

As that is saved which is not presently required, so the deposits in savings banks are laid by against a more urgent necessity. In many cases they remain undisturbed ten and even twenty years, accumulating interest, and increasing in amount. The depositors have no voice in the management of their funds, and the State should exercise a strict supervision, to guard against unwise or dishonest investments and practices; care should be taken that only the best securities are purchased and held by the trustees. Sound laws are indispensable as guides to superintendents and commissioners, and proper authority should be vested in these officials, which they should not fail to enforce, to supervise the action of trustees; much depends on good laws, more on their administration, but most of all on the trustees of the banks themselves. They should be selected with the greatest care from men who have no pecuniary benefit, directly or indirectly, to derive from the bank's business; they should be careful and prudent in their own affairs, and have been successful in their private undertakings; men who know the value of money, and have learned it by years of patient industry; speculators, or men of speculative tendencies, should be eschewed; those who expect very much to come from the investment of a very little, have no business with the care of the savings of small accumulators.

The largest and most successful banks now doing business have been managed by prudent trustees in the way that excites approbation, but these institutions have been thirty and forty years in existence; of those which have been started since 1862, and have been desirous of large deposits, and paid high rates of interest, many have

already come to grief, and more are ready to go out of business, and are only now lingering out an unhealthy existence, waiting for the tardy action of superintendents, or another turn of fortune's wheel, to develop the rottenness of their foundation.

The effect of a recent failure in an eastern town is described by an observer as most demoralizing on the depositors. Those who had acquired habits of prudence in expenditure, suddenly became extravagant; women bought silk dresses who before had worn cheaper goods; men spent their earnings in dissipation; and of those who continued to save, none would again trust their earnings in a savings bank.

The good which has been accomplished by savings banks since the foundation of the system, is secure and beyond peradventure; the evils which are in store, caused by the past mismanagement of some of them, may be mitigated if the proper course is speedily pursued by supervising officials, and directions are given that new deposits in doubtful banks shall be held separately from the older ones, until a thorough examination can be made by experts, and the amount of deficiency definitely ascertained, and charged either to delinquent trustees, or a pro rata to each deposit account, or both. Such proceedings would seem to be only just, for the losses have been made by the improper or mistaken use of the earlier deposits, and they, or the trustees, or both, should bear the loss, and not the newer ones which had no connection with the unfortunate concerns while the losses were accruing.

Such action would prevent undue anxiety on the part of depositors, who are always jealous for the safety of their little savings, and know of no better way to protect themselves in a time of distrust than to run to their depositories and demand their money; such proceedings, by a part, soon extends to a greater number, and usually ends in this State (in the case of those banks which hold depreciated securities) in the appointment of a receiver, who gets large fees, and after a long time the owners get a smaller percentage of their deposits than would be probable if the way first suggested should be adopted.

With some modifications which have been suggested in the course of this article, the general savings-banks law of the State of New York, adopted in 1875, with the amendments of this year, is undoubtedly the best in existence in this country. Its prominent provisions are: All banks in the State are put under the law; the organization of new banks is restricted thus: notice of intention must be published previous to filing the certificate, in the local papers, and all savings banks in the county must be served with a copy; the superintendent is then to ascertain whether the proposed bank is needed, whether there is population sufficient to promise success, and whether the proposed

corporators are men who can command confidence; if not satisfied that the proposed institution will be a public benefit, he is to refuse his consent. The trustees' meetings are to be held at least monthly; a trustee vacates his office who fails to attend six consecutive meetings of the board, unless he has been previously excused, also by becoming interested in any other savings bank; he is forbidden to borrow from his bank, or to become surety on any loan.

Deposits must not exceed $5,000 in the aggregate on any one account, unless made prior to the act, or in pursuance of an order of court. Investments may be made only in governments; in securities of this State, and of any State which has not, for ten years previously, defaulted in the payment of principal or interest on any debt authorized by any of its legislatures; in municipal bonds within this State, issued under State laws, or in any interest-bearing obligations of the city where the bank is located; in real estate necessary for actual use, the building may also be suitable for revenue, and the total cost is not to exceed one-half of the net surplus; in real estate obtained under foreclosure; in first mortgages within the State, up to fifty per cent. on improved, and forty per cent. on unimproved property, but no loan shall be made except on report of an examining committee, which report shall be kept on file, and not more than sixty per cent. of deposits shall be invested in mortgages. To meet contingencies, ten per cent. of deposits may be kept in banks or trust companies, provided the sum so deposited in any one does not exceed twenty-five per cent. of the capital and surplus of such bank or trust company.

In case of insolvency in depositories, savings banks are preferred creditors for the full amount of their lawful deposits in State banks.

Savings banks may loan on securities they are authorized to purchase up to ninety per cent. of their market value, and not above their par; loans on personal security are forbidden. Interest is restricted to five per cent. until after the surplus is fifteen per cent.; estimating securities at par value, or at their market value if that is below par, when at least once in three years the accumulation beyond is to be divided as an extra; trustees voting for a dividend are made personally liable for the amount voted for, unless it has been earned, and appears to the credit of the bank on its books of account.

A committee of trustees must examine the books, vouchers, and affairs generally of the savings bank twice each year,—*i. e.*, in January and July; the reports to the banking department must be based on these examinations, and verified under oath, by the trustees who have made them. The superintendent shall visit and examine every bank once in two years, and oftener at discretion; whenever satisfied that one is violating law, or following unsafe practices, or whenever it

appears to him to be unsafe or inexpedient for it to be continued in business, he shall institute proceedings, which may look to a removal of trustees, to consolidation with another bank, or to such other relief as may be required.

As soon as all the banks in the State are conformed to it, as they are directed in the act to be,—proper time, of course, having been given them to change their investments and modes of doing business,—abuses of the nature and kind we have been considering will cease to exist, and the system of true benevolence will have a freer opportunity to extend, to the advantage of the whole people, in a saving of taxes, to support poor-houses, workhouses, courts of justice, and prisons.

It is believed that a proper way to make good citizens, is to give them an opportunity honestly to acquire property; then the way should be opened to them early in life, and children should be taught to save what they are able, in order that they may grow up with thrifty and economical habits, which will tend to form industrious men and women.

The penny-bank system of Great Britain, which has been extended into the schools there, as well as into Belgium and France, cannot be too strongly recommended for adoption in this country.

In a paper read by Mr. William Meikle, Actuary of the Security Savings Bank of Glasgow, before the National Association for the Promotion of Social Science, three years ago, he says: "A remarkable experiment for teaching the young to save has been introduced into the public schools of Belgium. It originated with Mr. Laurent, Professor of Civil Law in the University of Ghent, whose writings on the subject obtained a prize of £400, as being the best treatise, or the best invention capable of improving the physical and intellectual condition of the working classes." He maintains that the best means of causing the spirit of economy to penetrate the habits of the people, is to teach it to their children, and make them practice it. Nothing is easier than to inspire in the young a taste for saving. This can be best accomplished in the public schools, where the managers and teachers have constant opportunities of enforcing and illustrating the advantages of saving, and where facilities can easily be afforded for carrying out the lessons of economy by means of penny banks, carried on in the schools. This has been done in Belgium with singular success. Out of 15,392 pupils in the town of Ghent, no less than 13,032 are depositors in the savings bank, and they have to their credit $92,560, an average of more than $7 each. The managers testify that the system has already produced a marked effect on the social and moral life of the working classes of Ghent. The experiment is being extended

to hundreds of other towns, and has created great interest throughout Belgium, in France, and the United Kingdom.

He adds: "I cordially commend the system to the attention of school boards and teachers, and can assure them that directors of savings banks in this country will cheerfully aid their endeavors." He also says: "As a means of still further encouraging young people to save, the school boards of Belgium have arranged that their prizes to meritorious pupils shall consist, in whole or in part, of a savings-bank book, inscribed with the pupil's name, and containing a small sum of money, which is not to be withdrawn till after a given time."

I learn, by a letter recently received from M. A. de Malarce of Paris, that France has already more than 230,000 saving scholars in 3,200 schools.

No people need to be taught *thrift* more than the poorer classes of this country; on account of the ease with which money is obtained in ordinary times, owing to well-known causes, no nation, probably, is more extravagant and prodigal in expenditures, and in times like the present, inconvenience and suffering are great. Having sung all summer, the winter finds them destitute, and without friends to succor them. But their more provident neighbors owe something to their own reputation as good citizens, and should endeavor to teach and assist them in a proper way.

Instead of soup-houses in winter, let us open penny banks in summer, and by the aid of missionaries properly selected, the systematic distribution of tracts in workshops and dwellings, instruct these people how to help themselves by saving their pennies, instead of spending them in drink-shops and for useless finery. How many pennies, and even dollars, are annually thrown away in bar-rooms and beer-gardens, the data is not at hand to determine, and the receipts by the government from taxes on spirit and malt liquors give a faint idea.

The plan of establishing school penny banks is very simple, and could be put in operation by any board of education in the large cities, and by trustees of school districts in the towns and villages, without expense. An hour one day in the week might be set apart for instruction and practice in the lesson of *thrift*. Let a book large enough to contain the names of all the pupils in a given school be provided, ruled with twelve vertical columns for the months, which are to be subdivided into four or five for the weeks, with inter-columns for dollars and cents; this is for the register to be kept by the teacher. Cards, to be folded once like the covers of a pass-book, and ruled like the register, are also necessary for each depositing scholar. Enter the deposits in the school ledger, and the corresponding amount in the depositor's book, which the pupil is to carry home with him. This

comprises the needed stationery, barring pen and ink. Let the amount received each day be deposited in some savings bank, to the credit of the school, and when the deposit of any pupil amounts to say three dollars, let an account be opened in his own name, and a book be given him by the bank, charging the amount to the account of the school, and by the school against the pupil in its ledger; the little card is still kept to enter the pennies on, and the account runs on as at first. The pupil is to receive no interest until he opens his account in the bank, but the school itself receives interest on the gross amount to its credit, which will pay the expense of stationery, school ledger, and card pass-books; should anything be left over after paying these expenses, it might be disposed of by vote of the pupils.

Parents will very soon become interested, and not only add extra pennies to their children's deposits, but be induced to try the experiment on their own account, by making deposits in the savings bank for themselves; once the habit is begun, it tends to increase as time goes on, and it is reasonable to suppose that it will not be long before the community will begin to feel the effect, in the lessening of its taxable burdens for the support of the wretched and destitute.

The experiment is worth trying. Why not put it at once into practice?

Statistics showing the Condition of Savings Banks in the New England States, New York, and New Jersey, compiled from the latest Official Reports. [By JNO. P. TOWNSEND of New York City.]

STATES.	Number of Banks.	Number of Depositors.	Average to each Depositor.	LIABILITIES.						ASSETS.	
				Deposits.	Surplus on hand.	Per cent.	Sundry Liabilities.	Per cent.	Total Liabilities.	U. S. Bonds and Loans on same.	Per cent.
Maine, . . .	60	90,621	$306 00	$26,669,671	$396,161	1.42	$752,932	2.71	$27,818,764	$602,419	2.17
New Hampshire, .	67	98,683	327 70	30,963,047	990,479	3.06	382,350	1.18	32,335,876	1,262,680	3.90
Vermont, . .	20	29,481	273 34	8,058,553	289,496	3.40	174,323	2.05	8,522,372	772,602	9.07
Massachusetts, .	180	739,289	329 15	243,340,642	5,238,410	2.10	456,807	0.18	249,035,859	11,940,758	4.80
Rhode Island, .	39	99,865	505 80	50,511,979	1,721,943	3.29	53,467	0.10	52,287,389	1,559,193	2.98
Connecticut, . .	86	203,514	385 84	78,524,172	2,579,024	3.17	233,435	0.29	81,336,631	6,067,656	7.46
Total for N. England States, .	452	1,261,453	$354 64	$438,068,064	$11,215,513	2.48	$2,053,314	0.45	$451,336,891	$22,205,308	4.92
New York, . .	150	849,638	372 72	316,677,287	34,176,603	9.71	975,257	0.28	351,829,147	81,586,588	23.19
New Jersey, . .	37	*77,793	*400 00	31,117,160	1,001,049	3.12	–	–	32,118,209	5,341,341	16.63
	639	2,188,884	$359 02	$785,862,511	$46,393,165	–	$3,028,571	–	$835,284,247	$109,133,237	–

* Estimated.

Statistics showing the Condition of Savings Banks—Continued.

STATES.	ASSETS—CONTINUED.									
	Bonds and Mortgages.	Per cent.	Railroad Stocks and Bonds, and Loans on same.	Per cent.	State, County, City, Town and Village Bonds, and Loans on same.	Per cent.	Bank Stock, and Loans on same.	Per cent.	Loans on Personal Security and Collaterals.	Per cent.
Maine, . . .	$8,156,544	29.32	$3,371,021	12.12	$8,986,361	32.30	$998,749	3.59	$3,854,901	13.86
New Hampshire, .	9,575,317	29.61	3,987,054	12.33	9,286,060	28.72	1,211,568	3.75	5,001,046	15.47
Vermont, . .	4,366,506	51.24	19,600	0.22	761,432	8.93	232,274	2.73	1,938,180	22.74
Massachusetts, .	121,151,105	48.65	10,114,876	4.06	27,499,912	11.04	27,139,124	10.90	35,075,194	14.08
Rhode Island, .	29,416,757	56.26	2,291,680	4.38	5,375,517	10.28	2,485,342	4.75	9,784,171	18.71
Connecticut, . .	55,403,988	68.12	2,982,053	3.67	7,456,212	9.17	3,850,906	4.72	2,606,214	3.23
Total for N. England States, .	$228,070,217	50.53	$22,766,284	5.04	$59,365,494	13.15	$35,917,963	7.96	$58,259,706	12.89
New York, . .	116,154,434	33.01	–	–	108,932,087	30.96	–	–	–	–
New Jersey, . .	14,609,962	45.49	16,745	0.05	7,305,942	22.75	–	–	2,135,406	6.65
	$358,834,613	–	$22,783,029	–	$175,603,523	–	$35,917,963	–	$60,395,112	–

Statistics showing the Condition of Savings Banks—Concluded.

STATES.	ASSETS—Concluded.							STATISTICAL.				
	Real Estate.	Per cent.	Cash on hand and in Bank.	Per cent.	Sundry Assets.	Per cent.	Total Assets.	Assets from which no income is received.	Per cent.	Largest single Depositor.	Expenses during the past year.	Per cent.
Maine, . . .	$464,131	1.67	$751,687	2.70	$632,951	2.27	$27,818,764	$1,105,955	3.98	7,361†	*	–
New Hampshire, .	*	–	794,932	2.46	1,217,219	3.76	32,335,876	*	–	*	$103,126	0.32
Vermont, . .	61,072	0.72	370,706	4.35	–	–	8,522,372	*	–	*	*	–
Massachusetts, .	5,087,031	2.03	9,350,158	3.75	1,677,701	0.69	249,035,859‡	*	–	*	657,858	0.27
Rhode Island, .	524,149	1.	774,059	1.48	76,521	0.16	52,287,389	*	–	48,092	*	–
Connecticut, . .	767,218	0.93	1,916,430	2.35	285,954	0.35	81,336,631	844,192	1.38	32,986	*	–
Total for N. England States, .	$6,903,601	1.56	$13,957,972	3.09	$3,890,346	0.86	$451,336,891	$1,950,147	0.43	–	–	–
New York, . .	10,367,794	2.95	19,516,234	5.55	15,272,010	4.34	351,829,147	*	–	$89,779	$1,466,644	0.42
New Jersey, . .	627,351	1.95	1,189,477	3.70	891,985	2.78	32,118,209	*	–	*	*	–
	$17,898,746	–	$34,663,683	–	$20,054,341	–	$835,284,247	$1,950,147	–	–	–	–

* No report.

† One hundred and thirty-seven of the largest depositors average this.

‡ This Massachusetts aggregate, Nov. 1, 1877, was $250,153,065; of which $244,596,614 were deposits (by 739,757 depositors), $4,267,923 was surplus, $914,647 were guarantee funds, and $373,880 were "sundries."

LOCAL TAXATION AND PUBLIC EXTRAVAGANCE.

A Paper read before the American Social Science Association, at Saratoga, September 5, 1877.

BY WM. MINOT, JR., OF BOSTON.

The present period of financial depression is one of those pauses in the advancing tide of human energy, which denote an interval of suspended force, and occur, as the history of commerce shows, with marked regularity. No former interval, however, has been so long and alarming as this; which gives both the occasion and opportunity for thought upon the science of economy. This has never been thoroughly studied by our people, who, wholly absorbed in the practice of getting wealth, have been singularly heedless of the science of keeping it. By no means the least important among these economic questions is that of taxation.

The true and only end of taxation is to secure at the least cost that protection to life, liberty, and property which is essential to the welfare of a State. For this purpose all wealth must contribute equally. If this protection is secured and the contributions exacted are not unequal, the State flourishes, native wealth grows, and other wealth seeks the same advantage; but if excessive and arbitrary exactions are made, native wealth is lessened and driven out, while other wealth is warned away.

The laws upon the subject of local taxation are substantially the same in all the States, except Pennsylvania. The general policy is to tax, first, all property in the State of every description, by whomsoever owned; next, every evidence of price paid for that property, such as notes for the price of goods sold, mortgages for the price of land sold, bonds, and all other paper evidences of contingent receipts; in a word, to tax all property twice. The State governments further undertake to tax all property (usually excepting land) to which any citizen of their own has title, notwithstanding that it is situated and taxed in another State or country. If the owner is in one State and his property in another, the property is taxed both where it is and where its owner is, under the rule judicially established for the purposes of taxation, that all personal property both follows the owner by fiction of law, and at the same time remains where it is as a matter of fact. A part, therefore, of the property which we try to tax is invisible and intangible, or in other words, does not exist; for it is impossible that the same thing should exist either in two States at the

same time, or both in itself and in the evidence of the price paid for it. If I sell land or goods for a price to be paid hereafter, and take a note or mortgage to secure payment of that price, the memorandum given me neither is nor makes new property; yet it is taxed.

As this property, which does not exist, cannot manifest itself, even for the purpose of taxation, it can only be made to appear by the oath of the owner, or by the guess of an assessor; and the execution of the law with certainty and justice depends practically on the latter expedient. As an inevitable consequence, very honest men are excessively taxed, and a part of the community are made to bear both their own burdens and those of others who escape taxation.

An inquiry into the origin of these laws shows that most of them are either the same, or copies of the same, which were framed some hundred years since, and that our policy is that of the colonists nearly two hundred and fifty years ago.

The English commoners, from a very early time, had demanded just taxation, and the right of taxing themselves; and the colonists, keeping these principles in mind, passed laws by which every man was to be taxed "according to his ability," but no man for that which he owned in England. Those colonists, our English ancestors, had, too, their full share of that same sturdy and steadfast spirit which, through persistence, has made in England a revolution less sudden, but far greater than that in this country. Animated by this spirit, the colonists for years before our revolt claimed the exclusive right of taxing themselves. They deemed this right indispensable to true liberty, and were so jealous of any attempt to infringe it, that upon the mere suggestion in Parliament of its right to impose taxes here, such an exponent of popular feeling as James Otis burst into a paroxysm of fiery eloquence; while a determined threat to exercise this right by the imposition of a tax, comparatively trivial in amount, aroused a deep and lasting spirit of indignation, which supported them through eight years of bloodshed, disorder, and suffering, and prevailed at last against the strength of England.

The Revolution was fought, however, not for the establishment of new liberties, but to maintain and secure those that we then had, or deemed ourselves entitled to, and the Constitution which followed merely formulated these rights.

At the period immediately after the Revolution, the States were few, and the means of communication and transportation were slow, expensive, and uncertain. Instead of paper evidences of contingent wealth in distant places, such as bonds, mortgages, and certificates of stock, which now flood the country, the property of every man was real, fixed, and visible. At that time, therefore, the laws of each

State which attempted to levy taxes on all property within it, as well as on all property which a man had abroad, except land, must practically have worked little injustice.

But since then, the universal use of credit, the restless activity and caprice of capital seeking profit, and the means afforded by the railroad, steamboat, and telegraph, have gradually produced an infinite variety in the forms of wealth, so that much of it is now not only widely scattered, but fictitious and ever shifting in character. Consequently, these antiquated laws, in attempting to tax everything, including what is fictitious, movable, and capricious, have insensibly grown to be unwholesome anomalies, defective in policy, in efficiency, and in justice; defective in policy, because the heavy and irregular taxes on money or capital are penalties, which not only keep it away, but drive it away, for it is at once sensitive and restless in its search of profit. At the same time, there can be no value without it. The richest mines and the most fertile lands are worthless till money and capital give them value, and the degree of prosperity in every State must always be in proportion to the amount of capital which finds active and profitable employment there.

That these laws are defective in efficiency, is an unquestioned fact. Almost every one admits that the amount of personal property which escapes taxation in the different States, varies from sixty to eighty-five per cent. of the whole. The authorities of one State claim that they find fifty per cent.

The reasons are obvious. It is attempted to levy taxes on every species of personal property, including that which is invisible and intangible. This is impossible, unless two propositions are true,—one, that all property exists twice, which is, perhaps, less absurd than the other,—that mankind is universally honest. And even if it were possible, in spite of the numberless means of evasion, and in violation of the popular sense of decency and right, to discover, by the evidence of owners bribed to perjury, property which does not exist, the system would still be inefficient, because by paramount law all United States bonds are exempt.

They are deficient in justice, simply because of their inefficiency, whereby those who do not escape are made to bear the burdens of those who do.

These defects, now so evident in this system, like the defects in other kinds of primitive and clumsy machinery, did not appear until the strain was great; but of late years we have been trying to work it under the enormous pressure of reckless public extravagance, dictated by voters without property, and acquiesced in by officers dependent on their favor; and under a demand for an expenditure far greater *per*

capita than that of other communities, this system has become not only ineffective, but intolerably oppressive in all the States. But the State of Massachusetts demands most from this machinery, and carries the system to the extreme. To her, therefore, has been justly given the honor, not only of having been once the first to resist, but of being now foremost in the practice of oppression, injustice, and folly in taxation.

The children of men who, one hundred years since, would rather die than pay one cent of tax not imposed by themselves, and whose orators stormed with indignation against what they called arbitrary searches and seizures, now support, or at least submit to, a system which has become monstrous,—a system, not of taxation, but of penalties on all holders of property. The colonists fought to establish the natural rights, which they said were implied by God's grant of life,—the right to enjoy life, liberty, and property; but so different is the sentiment which now prevails among their children, that it is hardly too much to say that the possession of property is treated as a misdemeanor. Some plead guilty, and pay the fine; some escape by perjury, and the fines of the rest are fixed, without evidence, by a secret court of inquisition, called the dooming board. In ordinary criminal procedure, as is well known, no man is bound to criminate himself, and he who pleads not guilty is entitled to be heard, by himself or his counsel, and to produce evidence in open court; but these are privileges reserved in Massachusetts for the better sort of criminals.

This dooming board, to which is intrusted one of the most important functions of our government, consists in country towns of but a small number, and in cities usually of three members, annually elected from each ward,—a very common qualification being a confirmed incapacity for business, and want of employment.

This august body, having no means of information, are guided chiefly by ignorance; and with the assistance of rumor, casual information, favor, or prejudice, gravely proceed to perform their important duties *by guess*, haphazard, hit or miss. The name of A B is proposed; the president awaits a motion; X Y rises, and guesses that A B is worth $100,000; if nobody else guesses more, A B's penalty for being in that city on the 1st of May is fixed at $1,500, unless somebody guesses that, if fined so much, he will go elsewhere. As some hundreds of guesses are made in a day, and the names of those who make them are not given, the guessers are tolerably free from restraint or anxiety. If A B, being in fact worth $1,000,000, pays cheerfully, a higher guess will be made next time, and so on continually, until, as one of our assessors remarked with gusto, the victim "squeals." If he be worth $1,000 only, he may relieve himself of the tax on one-half the excess, by a statement under oath. If his property is here and can be seized,

it may be confiscated. If it is in another State, and has been confiscated there, or is unavailable and pays no income, he may be arrested and imprisoned.

Comparing ourselves in this, as in some other respects, with other great nations, we find, as we have already intimated, that England has passed far beyond us in the science of government, and that there, as in France and Germany, the subject of taxation has constantly occupied the attention of the legislature; so much so, indeed, that the history of taxation in England is substantially the history of her Constitution.

All these countries obtain enormous revenues with astonishing ease, They all, however, possess an advantage over us in a paramount imperial authority. The framers of our Constitution had not the sagacity to see, that such authority would eventually be as important here, in the matter of regulating taxes, as the power Congress now has of regulating commerce between the States; for the question of equalizing taxation as between the States is but a question of free trade. Hence England, France, and Germany have been able to deal with the subject as a whole, to establish laws more nearly uniform throughout the kingdom, and to raise about three-quarters of their revenue by indirect, or, to use a new phrase, *voluntary taxes;* that is to say, taxes which a consumer almost unconsciously pays in the prices of those articles, such as beer, which he may abstain from if he pleases.

In the United States, however, those means of revenue, the customs and excises, are appropriated by the national government to pay the national expenses, and cannot to any extent be made use of for local taxation by the several States. It is worthy of remark, however, that, enormous as they are, these indirect taxes cause comparatively little complaint among the people generally.

As to remedies, it can readily be seen that the whole difficulty lies in depending on universal honesty to discover property which does not exist; in other words, in attempting to assess and levy upon that which is invisible and intangible. The exemption of this fictitious property from taxation would do away at once with double taxation, the oath, and the dooming board, with fallacies which vitiate our whole economy, based as it now is on a false duplication of our real wealth, and with the restrictions on inter-State commerce, which are wholly contrary to the spirit, if not indeed to the language, of our constitution.

I am not aware of any attempt to justify the present system, or to refute those axioms of political economy, now familiar to every youth, upon which the necessity for this change is urged, except in the report for 1874 of the Massachusetts commissioners, who pronounce the

present system good enough, but recommend some additional penalties, and that every man should love his neighbor as himself.

The objections commonly urged to a change are, first, that by the proposed exemption some wealth would escape taxation. But suppose that every State were to tax all the visible and tangible property within it, that is to say, all the land, all material products of labor, all the money and live-stock, in a word, *all that exists*, what is there left to tax? Is there any other real wealth? If all this above enumerated is removed or destroyed, what will become of the other forms of so-called personal property? Take away the railroad, and what becomes of its bonds? Take away the land, and what becomes of the mortgage? But the railroad and the land are real and will still exist, though you destroy the bond and the mortgage.

The other objection is, that by this change some men will escape taxation. The answer is simple and obvious. It is immaterial whether men escape or not. It is wealth which is taxed, not men; and if all wealth be equally and certainly taxed, every man must surely pay according to the wealth he uses. It is of no consequence to whom the bill is sent, or through what channel the tax comes in.

The proposition contained in the colonial laws, that every man ought to be taxed according to his ability, may be fallaciously interpreted. Perhaps the true principle may be more clearly expressed by this: Every man ought to be taxed on all that property which he consumes or appropriates for his exclusive use. As to all perishable articles of consumption, this is undoubtedly the inevitable law in a normal state of trade; for instance, the man who smokes the cigar pays all the accumulated taxes. So, if one has $100,000 and buries it, he ought to pay taxes on it, because he appropriates it exclusively; but if he gives the use of it to others by a loan, those who use it ought, and commonly do, pay the tax-bill, notwithstanding that it be sent to the lender.

But the folly and injustice committed in the means used by common councils and other local authorities to raise their spending-money, represent but one of the present evils of local taxation. The other is the wanton, wild prodigality with which public money is used. Mr. Harris of Springfield has published some facts on the subject, and though they have never been denied, or even qualified, they cannot be too often referred to or too widely known.

These facts show, that after deducting $8 *per capita*, to defray the cost of managing all the affairs of a city, as a legitimate item in the annual cost of living, the average net saving of each individual cannot exceed $10 yearly, and that consequently a tax of $18 *per capita* annually (about $90 for every family) exhausts the whole income of the

community, and renders accumulation impossible, unless the remaining cost of living be diminished. His facts further show, that the average tax *per capita* through all the cities in Massachusetts, for instance, excluding Boston, was $5.94 in 1861, and in 1875 $17.11; that the debt of these cities, which in 1861 amounted to only $11,000,000, in 1875 amounted to $70,500,000. Again, that in 1875 the average annual tax *per capita* of many of the cities in the United States far exceeded the sum of $18, within which accumulation is possible, and ranged as high as $36.

Since then, generally speaking, there has been no substantial change in these respects. The distress among the people is growing daily, repudiation has begun, and an application has been made to put at least one city into the hands of a receiver, as a bankrupt corporation. In seeking to account for this increased expenditure, we are accustomed to speak of the extraordinary burden caused by the war; but statistics show at once that the interest on the local war debts is but a small part of our expenses, and possibly it might be shown that the legal-tender act cost us more than the war itself, for the date of that act marks the beginning of an era of extravagance.

It is difficult to determine in what cases, and to what degree, society and laws react upon each other. But though, in theory, all laws of a free country must in their inception accord with popular sentiment, and must lose their vitality by popular disapproval, yet it is true that laws react upon and modify society, and this we think has been the case with the legal-tender act, although its framers, far from intending, or indeed foreseeing all its results, passed the measure merely because they deemed it essential to the success of the war and the stability of the nation.

Be that as it may, Congress did enact that a piece of irredeemable paper was a dollar, and by this act, confirmed as it was by the judgment of the supreme court, our many millions of people became subscribers to a fiction, and very soon its dupes. A great fallacy entered at once into the financial policy of the nation, and of every State, city, and individual in it, and became the basis of all estimates and calculations. The wealth throughout the country was by law doubled. It was as easy to acquire two dollars as it had been formerly to acquire one. The rewards of successful enterprise became enormous, and a stimulus was given to all kinds of speculation. To carry this on, money was borrowed upon credit, and as, in all estimates of resources made in this country, credits or debts are treated as property, and added to, instead of being deducted from, the security on which they are based, the apparent wealth of the country increased nearly fourfold.

As we look back upon it now, there is something appalling in the ease with which a fiction, so monstrous in its audacity, was created and established, and still more in the extent and greatness of its power. The result was a vast system of delusions, all based, like jugglers' tricks, upon a single formula, which, when found, is very simple. Congress enacted, and the people accepted the proposition, that *once one is two;* that is, that a real dollar was worth two fictitious ones. By a system of credits, this principle was extended in the estimation of resources. If once one is two, it easily follows that once one times once one is four. This may be thought a very exaggerated way of expressing the principle by which a great nation has been guided in the conduct of all its practical affairs, but I shall endeavor to show, by illustration, that it is approximately a just one, and, indeed, though so plainly absurd, it is still confided in by many of us. To show its application, let us take a rough illustration.

Suppose a railroad worth $10,000,000 in gold to have been projected. By law of Congress every dollar became two. The railroad, by virtue of the legal-tender act, became, therefore, worth $20,000,000; that is, once one became two. To build this railroad the company issues $20,000,000 of bonds, which in themselves are of course not wealth, but signs of contingent wealth. A census is taken and assessors' valuations are made, in which both the value of the railroad and of the $20,000,000 bonds, or a large part of them, are included; thus the once one, already supposed to be two, is again in the estimate of resources multiplied by once one, and is thought to be four, and the $40,000,000 of property thus found, which in reality is but $10,000,000, becomes part of the "whole resources of the country," upon which the credit of the United States is based. This $40,000,000 is reckoned again among the resources of the various States in which the railroad lies, or the bonds are owned; and further yet, the amount which each State and the various towns and cities within it can afford to spend is calculated upon this sum. But during the last three or four years it has been practically proved many times, that the once one times once one is not four, but only one, after all. Using the same illustration: by the gradual return to gold values, the worth of our railroad falls again from $20,000,000 to $10,000,000, and fails to pay interest on the bonds. The bondholders accordingly take possession of the road, now worth but $10,000,000, and the $20,000,000 bonds are merged in the property of which they are only the evidence; and thus, in the case we suppose, thirty out of the forty millions of dollars included in the "real resources of the country" mysteriously vanish. Such processes, daily occurring throughout the country, have brought about

what sanguine people are pleased to call the present temporary depression.

It is not difficult to see how even honest and responsible persons, unconsciously believing in and acting upon such false principles, and believing in a wealth almost infinite, became proportionably liberal in expenditures, public and private. The evidence of this exists everywhere. Look at the public buildings erected during this period, — the city halls, school-houses, poor-houses, asylums, and post-offices, — all profusely decorated and luxuriously furnished. Why is it that these have all been built within fifteen years? Why is it that within fifteen years, and never before, these buildings have become indispensably necessary? Look again at the rows of magnificent dwellings, places of business, churches, hotels, steamboats, and palace-cars, all dating within the same period. Why is it that, within this short time, life-insurance companies have found it indispensably necessary to invest the money of widows and orphans in the building of marble palaces? Why has it happened so lately that nothing but rich marbles and precious woods will answer for the protection of dry-goods? Why is it that money expended in the gaudy ornaments of a steamer, hotel, or palace-car is a more profitable investment than money expended in appliances for safety and comfort?

It is because the appetite for ostentation has grown by what it fed on, and that while growing it has been recognized, fostered, and catered to by those who sought office or profit from popular favor.

But there are other remarkable changes within the same few years; for the sentiments, the constituent parts, and the power of the people, at whose dictation public money is spent, have greatly changed also. Upon this enormous increase of wealth, naturally followed very great discrepancy in the distribution of it. The appearance of money everywhere, ready for the hand of any man who sought it, excited an extreme energy and a spirit of enterprise. New sources of wealth were found and developed. The circulation of money became very constant and rapid, and those who tapped this circulation successfully accumulated enormous fortunes. What one man gains, however, others must lose, and so, wealth begetting wealth, the rich become rapidly richer, and the poor poorer. Thus not only have the numbers of poor men increased by the concentration of wealth, but fictitious values and false principles have disturbed the natural laws of trade; great irregularities nnd discrepancies in the relative prices of labor, and of many of the necessaries of life, have occurred; and so, much hardship has arisen in the process of returning to real values. Discontent, jealousy, hostility to wealth, and a very marked antagonism of classes followed. Of this, the granger laws, the labor laws, the

workingmen's associations, and finally the bloody riots of July, are but too unmistakable evidence.

At the same time, the universal prevalence of these false principles, the growing love of display, the abundance and accessibility of wealth, the great temptations to perjury offered by the moiety system, the custom-house and tax laws, and the final pressure of general bankruptcy, have caused among all classes a distinct change in the tone of mercantile morality, and an insensibility to fraud, corruption, and dishonor, which must mortify and alarm every earnest man.

But could better be expected of a people whose representatives enact falsehoods, whose judiciary supports them, whose census-takers and assessors are expressly appointed to manufacture and publish them, whose government offers premiums for perjury, and whose financial and commercial system is founded on a lie?

That falsehood is essential to the existence of polite society, is, I believe, generally admitted, upon the ground that pleasure is a delusion founded on deceit; but whether such principles have a wholesome influence on the character of a nation, we maintain to be at least an open question.

Besides these changes of sentiment in all classes, the power of the majority of voters has been greatly increased by immigration, disproportionate natural increase, and the removal of all restrictions.

All these facts, and their relation to the growth of public extravagance, are matters of common observation; but if confirmation is necessary, it may be found in the fact, that in great cities where this extravagance is especially marked, these changes in the character and power of the majority have been most observable.

As a remedy for the evil of excessive extravagance in public expenditure, the New York commissioners, in their recent report, recommended that the possession of at least some property should be made a necessary qualification for voting upon the disposition of property. It is perhaps superfluous to say that we regard their conclusion as just. But whether or not so radical a change is effected, the lawmakers and officers of our States and cities must know the truth, and deal with realities, before a wholesome sentiment can prevail among them, and pervade the conduct of public affairs. Let us, therefore, not seek to re-establish the great fiction which has vitiated our financial system, but rather to do away finally, not only with that, but with the other fictions as to the nature of property, upon which our whole policy, as to raising and expending taxes, is based. Let us seek the truth, and not hide and shun it as we now do.

Though the practical difficulty of such reforms is great, and though it is not easy to induce a legislature, after it meets, to act upon views

new to them, it is still possible, by hard physical labor, to send there men already impressed with their importance, and much can be done if undertaken in time.

But as it is, the great majority in power are restrained by no motive of self-interest appreciable by themselves; they have wholly at their mercy a class possessed apparently of boundless wealth; they see constant examples of reckless extravagance; can they be blamed for yielding to the temptation? And if, when these majorities become yet greater, and more fully conscious of their power, discontent and jealousy ripen into hatred, what then? The curtain has been drawn aside for a moment, let us profit by what we saw there.

NOTE.—A brief Paper by Mr. D. L. HARRIS, pursuing farther the subject referred to by Mr. Minot on page 72, will be found in this number of the *Journal*, together with a Paper on Municipal Government, by Mr. SAMUEL BOWLES.

THE SOUTHERN STATES.

Their Social and Industrial History, Condition, and Needs.

READ BEFORE THE SOCIAL SCIENCE ASSOCIATION, SEPTEMBER 6, 1877, BY MR. W. L. TRENHOLM OF SOUTH CAROLINA.

I.

It is honorable to both the patriotism and the sagacity of this association, that it should recognize and respond to the prevalent desire of the American people to know each other better. The popular mind is fixed in the belief that a better acquaintance between the sections would have averted the late war, and that the permanence of our national unity depends more upon frequent intercourse and close personal and business relations among the people farthest apart from each other, than upon political arrangements or Congressional legislation. During and since the war the people of the South have learned much about their Northern brethren, and have acquired a knowledge of the social and industrial characteristics of the North which cannot fail to be of use in their present circumstances; it remains for the people of the North to come to a like understanding of Southern affairs in order that harmony and prosperity may reign throughout the land. It is manifestly impossible on this occasion to enter into details, nor is that necessary in order to present a basis for useful discussion; the purpose in view will be attained if we select for consideration only those traits of social and industrial development which, being found nowhere else, constitute the characteristics of the South. These distinguishing traits are all clearly defined, they stand out in bold relief upon the surface of American history and society, and are strongly contrasted with the types of progress prevailing elsewhere.

THE ISOLATION OF THE SOUTH.

The century ending in 1860 witnessed wonderful social and industrial changes all over the world. Our own revolution and those in France, the Napoleonic wars and their consequences, had created almost a new world for the lower orders of society everywhere, enlarging their horizon and elevating their position; while the higher classes, previously idle, were gradually drawn within the expanding circle of industrial activity. Invention, science, and the arts had literally put a new face upon the earth; the division of labor had augmented the producing capacity of the masses, and multiplied their employments

and needs, stimulating trade and diffusing intelligence. The gold of California and Australia, together with the improvements in navigation and inland transportation, produced universal activity in commerce and trade. The whirl and rush of this progress encompassed the South on every side; she came into contact with it at every point of her extended interests and on every line of her development; she felt its influence upon her industries, and tasted its fruits in her expanding wealth. Yet alone in all the world she stood unmoved by it; in government, in society, in employments, in labor, the States of the South in 1860 were substantially what they had been in 1810, when the abolition of the slave trade had impressed upon their development the last modification of form of which it seemed susceptible. Not only had the South remained unchanged during all this time, but the flood of immigration which poured over all the rest of the country had passed her by. Millions of men and women from every country of Europe passed along the whole extent of her Northern border, bringing with them the industrial secrets of every quarter of the globe, and carrying their skill and thrift to the uttermost wilds of the West; they passed within sight almost of the fertile soil, untenanted lands, and untouched resources of the South, where, beside, the roads, bridges, and railroads were already built, cities and towns already established, churches and schools already existing; but they would not come in. The conservatism and isolation of the South are the more remarkable because the century was so full of enriching progress, and because the American people have ever taken the lead in exploring new ideas and trying new methods.

PRIMITIVE SOCIAL AND INDUSTRIAL FORMS.

Yet in that very age and that very country these few States stood locked in immobility, and for a hundred years they clung to the most primitive form of human society, and adhered to the simplest methods of industry. Blind to the mineral wealth of their hills, deaf to the roar of waterfalls which would have guided any other people to great manufacturing achievements, the people of the South concentrated their whole efforts upon the production of cotton; and even in that pursuit they sought neither the aid of machinery nor the counsel of science; even the suggestions of thrift were disregarded, the production of working, animals, and food was abandoned to the neighboring States. The nine cotton States which supplied the world with cotton had in 1860 only one hundred and four cotton factories out of ten hundred and ninety-one in the United States,—less than ten per centum,—and their consumption of raw material was only seven and one-half per centum.

A conservatism so exceptional and conspicuous became an offence to the spirit of progress animating the rest of the world; it was unintelligible, and therefore intolerable. Thus the South came to be separated from the rest of the world in sympathy and feeling as well as in interests and experience. It is obvious that such effects could only have been produced by causes of exceptional force and persistence. No ordinary influences, certainly no mere normal state of mind, could have withstood the onset of modern progress, the solicitations of self-interest, the promptings of cupidity, the siege and bombardment of outside public opinion to which the South was so long and so constantly subjected; nor, on the other hand, could any sentiment or squeamishness have kept out of so attractive a country the immigrant who cheerfully encounters cold, hunger, thirst, and savages in making his home in the lonely prairie. We must, of course, look for the prime cause of Southern peculiarities in its peculiar institution, African slavery, and then we must go further and observe that under this form of slavery labor becomes capitalized; the labor of every individual is thrown into a common stock and constitutes a labor capital, possessing the power of labor and the mobility of capital.

OUTSIDE FORCES.

The destiny of the South has always been ruled by forces over which her own people had no control. Her history during the century ending in 1860 was wholly controlled by a series of events occurring outside her own territory. These were, between 1765 and 1795, the improvements made in cotton machinery by Hargreaves, Arkwright, and Compton in England; Watt's invention of the steam-engine and its subsequent application to cotton machinery. In 1795 Eli Whitney's invention of the cotton-gin. In 1806 the introduction of steamboats. In 1808 the abolition of the slave trade. In 1825 Roberts's improvements in cotton-spinning machinery in England. In 1835 and 1836 the introduction of railroads. The cotton-gin made cotton planting profitable; the English demand arising from improved machinery stimulated its rapid extension; the abolition of the slave trade cut off supplies of imported labor for this purpose, and threw the strain upon the labor already in the country. The mobility of this labor and the gain in moving it to the best soils caused a considerable part of the population to be incessantly and rapidly transported from place to place by means of the new agencies supplied by steam. Thus the population of the original slave States became prematurely distributed over an area much too extended for advantageous occupation by so small a number. Receiving hardly any accessions from without, Virginia, the Carolinas, and Georgia have peopled the greater part of the

territory between the Rio Grande and the thirty ninth parallel of latitude.

THE HINDRANCE TO IMMIGRATION.

It was this spreading out of its original population over a vast area which chiefly distinguished Southern territorial development from Northern, and the causes which produced this movement also obstructed European immigration and otherwise hindered material progress. It has been customary to ascribe the hindrance to moral causes, to speak of the "instincts of freedom," and other supposed sentimental objections; but such explanations are unphilosophical and untrue. Immigrants had certainly been taught, by the experience of those who had tried it, that the South was not the place for them, but the causes that excluded them were physical and not moral; they were economic and not sentimental; they arose not from any obloquy attaching to labor at the South, but from the fact that here slavery mobilized the laboring population and enabled it to be massed together in large force, to be rapidly moved from place to place, and to occupy new and rich soils just as soon as these became accessible to immigrants. Under ordinary circumstances the native population of a country is permanently seated; attachment to the soil and the ties of family retain it until its density becomes excessive, and emigration is embraced as the only alternative to hopeless poverty. If such conditions had obtained at the South, or if slavery here had not been contemporaneous with the extraordinary facilities for transmigration which the present century has introduced, the original slave States would probably have contained to-day the eleven millions which constitute the Southern population, and European immigration would long since have filled up all the rest of her present territory. But when the whole intelligence of the South was intent upon discovering the best and richest soils, when its whole capital was available for their acquisition and its whole laboring population ready to occupy them, the immigrant found himself at a hopeless disadvantage. Without capital or credit, he came in competition with the capitalist master of many slaves, and found the best soils preoccupied; being alone, he earned less and spent more in living than the slave, for combination augments production and economizes consumption.

THE MOBILITY OF POPULATION.

The mobility of the laboring population not only excluded immigrants from new territory, and prematurely diminished the laboring population of the older States, but in these latter the slaves became massed together as the competition of the richer States of the Southwest came to be more and more felt there. Thus profitable planting

required large capital, and small proprietors were at a disadvantage. Free labor was too expensive for both laborer and employer; hence many of the whites were forced to emigrate. So extensive was this emigration, that the census of 1860 showed that of the white persons then living in the United States, who had been born in South Carolina, 277,000 only remained at home, while 193,000 were permanently settled in other States; North Carolina retained 634,000 and had parted with 272,000; Virginia retained 1,000,000 and had sent off 400,000 of her native white population. The same causes practically prohibited manufactures, because manufactures even more than agriculture depend upon fixity of population. Cheapness of living, uniformity and regularity in the supply of the necessaries of life, are conditions which must be in existence in every locality before manufacturing becomes possible there. These conditions cannot obtain where population is shifting, nor will capital consent to permanent investment where values fluctuate with the movements of nomadic labor.

THE MARKS OF UNREST.

This mobility of population stimulated the territorial expansion of Southern institutions, but it impressed upon the people and the land marks of unrest that remain to this day. A large part of the population was always on the move, and another large part lived in expectation of moving. Hence the flimsiness of their houses, farm-buildings, and fences, the rudeness of their tillage, the untidiness of their fields; hence the dead stumps and trunks tolerated for years, the "old fields" abandoned for new lands, the habit of suffering inconvenience and discomfort, of adopting makeshifts and employing temporary expedients. All these traits, and more which need not be particularized, characterize a people in a state of unrest as to the present and uncertainty as to the future — a people who do not consciously possess the soil they live on, who do not know whether or not they are at home for life. While this condition of things existed at the South, the Northern people rapidly filled up their older States; labor sought new occupation at home instead of seeking new fields elsewhere. Hence industry became diversified, and the structure of society obtained greater complexity. The development at the North partook of that of the rest of the world; the development at the South was *sui generis*. Industry and society at the North were borne along in the general current of progress; at the South they were fixed in immovable conservatism.

STRUCTURAL AND FUNCTIONAL DEVELOPMENT.

The difference between Northern and Southern industrial development seems to be analogous to the difference described by naturalists

between structural and functional development in animal organisms. Northern or structural development proceeds toward complexity of structure; that is, multiplicity of functions, by simplifying each function, specializing each organ. The division of labor accomplishes this end industrially; for when twenty men are employed diversely to make by their united processes one pin, it is evident that the pin factory grows more complex, but the function of each artisan is more simple, and his capacities consequently become more highly specialized. On the other hand, Southern or functional development is apart from change of structure; it relates wholly to enlargement of capacity, growth of power in the direction of comprehensiveness. On a plantation employing five hundred hands the master is capitalist, land-owner, magistrate, and political representative. He supplies the consumption and disposes of the products of the whole community. In a word, he is everything, and everything is his. On the other hand, in a manufacturing village, furnishing five hundred hands to the mill, each of these employments will occupy a different person or set of persons; while the mill will probably be owned by a joint-stock company, it will obtain its commercial capital from a bank and hire the labor it needs. In the latter case the industrial structure is complex; there are many persons embraced in it, and the function of each is simple and special. In the former case the industrial structure is simple; the master is the only person concerned, for the slaves are his, and consequently their work and their interests are his, but his functions are complex and general. Now, since the world at large has progressed by structural development, complexity of structure has become the conventional gauge of progress, while permanence of outward form is generally accepted as evidence of social and industrial stagnation. Hence it is that Southern development has been misunderstood and its vitality has been underestimated. Measured by the conventional standards, the Southern States appear to have stood still, because their growth has been internal, not external. The causes already described confined the activities of the Southern people within a rigid circle, and slavery stamped upon all their institutions its own immutability of form; hence, to estimate aright the influence that modern culture has had upon the South, we must apply to it standards other than the conventional.

ROMAN AND SOUTHERN SLAVERY.

Structurally, slavery in South Carolina in 1860 was substantially what it was in Rome before the Christian era. In external form, in the civil status of the slave, the legal and conventional rights of the master, the relations of master and slave to the State, there was little

difference between the ancient and modern institution; whereas, in organic development, in functional complexity, in economic value, and in social effect, the difference was immense. In Rome the slave was a luxury of the rich — the personal servant (*servus*), attendant, and minister to the wants, comforts, and indulgences of his master. Even the *familia rustica*, which included the farm-hands, produced nothing for sale. The produce of the farm went no further than the master's table. In the South, on the other hand, the number of slaves employed in personal service was insignificant; the great body were engaged industrially, and constituted the *primum mobile* of the whole productive system of the community. It is well known how marvellously the labor thus organized responded to the demands made upon it by the cotton trade of the world; how rapidly it expanded so as to embrace the immense territory it covered in 1860; with what intelligence the most advantageous points in that territory were selected, and with what celerity they were occupied.

NORTHERN AND SOUTHERN TYPES.

Prepossessed as most minds are with conventional types of progress, it requires some effort to recognize the importance of the Southern type. The difficulty is increased by the fact that European immigration was more valuable and enriching to the North than cotton was to the South; but if the North had had no immigration, the advantage in the race would have been on the other side, and we should then perhaps have discovered utilities in the principle of functional development which have been obscured by the proximity of the dazzling Northern type. The most striking difference between the two modes of development as regards their social effect is that the Northern affects chiefly the greater number, the laborer class; the Southern affects altogether the master class. While Massachusetts was subdividing the processes of labor and specializing the capacities of the laborer, South Carolina was multiplying the functions of the master and generalizing his capacities. The Northern problem was how to increase and cheapen production by division of labor; the Southern, how to attain the same ends by concentration of labor. The Northern method was analytical, and its aim perfection of details; the Southern was synthetical, and its aim augmentation of the gross product. The former tended to produce intellectual acuteness, to stimulate invention, to foster speculation; the latter, to develop the judgment, to enlarge the powers of combination, and to strengthen the faith.

The one best prepares the hand to perform; the other best trains the head to plan and direct, and the heart to endure.

From the view here presented, it appears that the chief influence prevailing at the South, and that which gave their characteristics to its social and industrial development, was the mobilization, the capitalization, so to speak, of its whole laboring population. This mobility of labor stimulated the colonization of new territory, depleted the population of the older States, and within these States produced constant movements from one locality to another, as under the stress of competition the labor left in them came to be massed upon the best lands. This fluctuation of population unsettled the value of land and repressed the growth of those smaller industries which spring up around prosperous agriculture when permanently seated. Hence the South offered no employment to that useful class which naturally fills the wide interval between those who own the land and those who labor upon it. Outside the few towns, there were no artisans, no trades. The general result of all these influences was to render the Southern people socially and industrially more homogeneous than any other body of people in the United States, to separate them from other sections, and to impress upon them a distinct sectional character by subjecting them to a process of development unlike that prevailing elsewhere in the Union.

AFTER THE WAR.

The war marked the end of slavery, and the end of that process of development growing out of slavery. The contest had been sustained at the South chiefly by means of the social and industrial organization obtaining there, but at the same time its hardships had been increased and its success hindered by the want of manufactures and the absence of mechanical skill and experience. The need of these latter came in that way to be very widely and forcibly felt. After the war the same needs were felt in another way. During the prosperous days before 1860 it seemed easy to buy all that the South needed—easier to buy than to produce; but in 1865 the Southern people had no money and but little credit. They needed everything from shoes up to locomotives, and could make nothing for themselves, not even ploughs and axes. The waste of the war had to be made up; the people were scattered over a territory much too large for their number; the whole laboring population was disordered by sudden emancipation and unsettled by political enfranchisement without previous enlightenment; there were no banks, and money was scarce at from twenty to thirty per centum per annum. Under these circumstances any help from without would have been welcome; immigration would have been like the transfusion of blood into the veins of a dying man, but

the political condition of the South forbade. Those who came to her came to plunder, not to help; to oppress, not to govern; to mislead the ignorant, not to teach them; to play upon the feelings still quivering from the lacerations of war, not to soothe them. As long as they were in power, they held the South, apart from the rest of the country; they alienated from her the sympathies of the other sections; they repressed her own aspirations for full rehabilitation. It was under these adverse circumstances and under these gloomy auspices that the Southern people set to work to build again on the ruins of their former prosperity.

HOW THE TRAINING OF THE SOUTH HELPED IT.

Then it was that they experienced the utility of the training they had received from the peculiarities of their industry and society. The school of the plantation had fitted them to perform the duties and endure the hardships of the war. The same discipline and education enabled them to preserve their communities from ruin, to rescue their civilization from the destruction which threatened it, and to revive and re-establish their industrial, social, and political institutions. The patient plodding learned in the routine of agriculture; the simple faith made strong by the life-long exercise of it in sowing seed in reliance upon a distant harvest; the fortitude and self-denial matured by personal conflict with the rude forces of nature; the self-reliance and the readiness in resource developed by the absence of machinery and of co-operative industries in their pursuits,—all combined to enable the people of the Southern States to return contentedly to industry even from the excitements of war, to subdue in their own breasts the bitternesses left there by the conflict, to overcome the hostility and the suspicion of their antagonists, to regain a place and a voice in the national councils, and above all to retain the confidence, the respect, and the affection of their late slaves; not only while these latter were tasting the first-fruits of personal liberty and enjoying the bewildering sweets of political supremacy, but even throughout the long struggle against the misgovernment and incapacity of their demagogues and courtiers. It may be that in the end the century passed in working out its peculiar development may prove to have been time well employed; it may be that what now seems to have been a premature extension of territory was only an anticipation of destiny; that what now seems a weakening of the productive capacity of the population by its diffusion over a large area in order to preserve uniformity of employment may prove to be an element of strength for the future by creating larger spaces to be occupied, larger industrial intervals to be filled by immigration.

THE SOUTHERN STATES ASSIMILATED TO THE OTHERS.

Whether this is so or not, it is evident that the South is now socially and industrially assimilated to the rest of the world. Its society has assumed the conventional form, its labor is no longer capitalized, its masses have lost their mobility, population has become fixed, and the barriers to immigration are thrown down. The cultivation of cotton is still the chief industry, and will, no doubt, long continue to be so; but already farms have become more profitable than plantations, small industries are thriving and multiplying, agriculture seeks improved implements and methods, and has become more varied both in its processes and products. In mining and manufacturing there is more interest and stir, and immigration seems nearer than ever before. It is of great consequence to the whole country, that the reviving industries of the South should be fostered and stimulated, and that, as far as it may be done consistently with a just regard to other interests, such measures should be adopted by the national government as will conduce to that end. Fortunately for the South, and perhaps equally fortunate for the whole country, she no longer stands alone in the Union. The changes in her condition, so dearly purchased, place her now side by side with other agricultural communities, and their common needs and demands will unite them for the future and efface the few differences still remaining. In considering, therefore, what influence the restored and rehabilitated South will probably exercise upon national affairs, it is only necessary to find out what are the chief needs of all the agriculturists of the Union, and what legislation is requisite to satisfy those needs.

AGRICULTURE AND COMMERCE.

It is obvious that every community which confines itself to a single productive industry becomes dependent upon commerce, in its largest sense, for effecting an exchange of its products for the articles it consumes. Trade, as distinguished from commerce, is most active in a community of diversified pursuits, where the local consumption is supplied by local production through an interchange among individuals; but when all the inhabitants of a large area are mainly employed in producing some one thing, like cotton or wheat, it is evident that the aggregate product must far exceed the home consumption, and that the bulk of the consumption must be obtained from outside, in exchange for the exportable surplus of products. No agency can effect this exchange so economically and advantageously as a comprehensive and unfettered commerce, possessing free and direct channels to the ulti-

mate points of distribution of the home products, and similar channels from the original sources supplying the home consumption. In the free development of such a community commerce arises naturally; hence, in the early days of the Republic, its chief commerce was seated in the South because the South depended most upon exports and imports, while the North, with its varied products, was more nearly self-supporting. When, however, the Western grain-fields yielded a large exportable surplus, and the Erie Canal furnished an outlet for it, New York was naturally the place of its export. At the same time the modification of the English corn laws made Liverpool the chief receiving point of this grain, and it became also, from other causes, the point of departure for emigrant and other vessels for the United States.

NEW YORK AND OTHER PORTS.

The rapid growth of the grain trade one way and emigrant traffic the other soon gave to New York a commercial preponderance and caused the whole commerce of the country to concentrate there, because New York was the American end, as Liverpool was the European end, of what was then the great highway between the continents, because it was the line of the swiftest and most frequent communication. As long as the biggest ships were the swiftest sailers, and, after steamers came in, as long as they were too few and too costly to be employed upon any but the most crowded routes, all the commercial influences favored the concentration at New York, so that gradually other ports lost their foreign trade. The Southern ports, however, retained some share in the exportation of cotton, but this was obstructed by the absence of return cargoes, which rendered rates of freight from Southern ports higher than from New York. This absence of return freights was mainly due to the effect of the tariff, which not only forced the South to change her consumption from cheaper foreign to dearer domestic goods, but also to bring these through other channels, which naturally, in time, came also to be channels of export, by which the process of concentration at New York was further stimulated. At present the Atlantic cable has equalized among all places in this country the facility of communication with Europe, and steamers have come into more general use. Hence we see the foreign commerce of other ports expanding. The tendency now is toward a distribution of exports; but the centralizing influence of the tariff still affects imports, and gives New York an artificial advantage at the expense of the producers of the commodities exported at other points, for these have to pay a rate of outward freight sufficiently high to compensate the vessel for an unprofitable inward voyage.

THE TARIFF AND COTTON EXPORTS.

The Southern ports have already regained their full share of the cotton exports. If the vessels that take away the cotton brought full inward cargoes, which they would do if the South were free to buy from those to whom she sells, the annual saving in outward freight on the cotton exported would be not less than $5,000,000, the whole of which would inure to the producers of cotton. The whole agricultural interests of this country are concerned in making its foreign commerce free, and facilitating its coastwise and internal trade. Hence they will naturally favor a reform of the tariff and such modification of the navigation laws as will permit American merchants to buy the cheapest and best ships and steamers wherever they are to be found.

THE CURRENCY QUESTION.

The settlement of the currency question and the reform of the national bank act are of vital importance to the South, as well as other sections. If any one class in this country is likely to gain more than others by resumption, it will be the cotton growers, for much the largest part of their product is actually sold abroad for gold, and the expense of converting that gold into the currency which they have been content to take, comes, like all commercial charges, off the price realized by the producer. With gold about to be restored to its function as the basis of bank-note circulation, the country banks, especially in the South and the Northwest, should be at once emancipated from the fetters of the national bank act by the repeal of the ten per centum tax upon circulation.

The effect of this enactment upon the purely agricultural communities of the country seems to have been but little attended to. Hence, if, after discussion, it should appear that the views here presented are correct, the needful remedy should be sought not by or for the South alone. Money capital at the South has never been abundant, but before the war there were many banks there which enjoyed wide and well-deserved credit, and which were thus able to supply the circulation required.

THE SCOTCH BANKING SYSTEM.

The Scotch banks of issue seem to have furnished the type for the Southern banks, and similarity of circumstances produced a like success in both places. Under the system of banking referred to, the banks issued their demand notes in exchange for the time notes discounted or the exchange purchased, upon a calculation that the currency requirements of the community would keep these notes in circulation a longer or shorter time. A reserve of about thirty-three per

centum was held in coin to meet such calls for redemption as might occur. This exchange of corporate for private credit is entirely legitimate and sound. Whatever risk there is in it is covered by the capital of the bank. It is in effect a system of credit-mutual insurance. Such banks of issue are especially necessary in agricultural communities, because there money capital is always scarce, and they are especially successful in such communities because agricultural pursuits are not speculative. Every man's condition is easily and accurately known, his ability to pay is assumed by the visible progress of his crop toward maturity, and the use he makes of the money borrowed is necessarily patent. Hence the prudent conduct of such a bank is a matter of will only. The way is plain. Not only are such banks peculiarly adapted to agricultural communities, but no other banks are suited to their needs. All agriculturists are presumed to have their capital invested in land, animals, and other adjuncts to the farm, and they only need money to defray the expenses of making the crop. It is quite as legitimate in a farmer to borrow money for this purpose from a bank as it is in a city contractor or a manufacturer to borrow the means to complete a contract. Each pays when his harvest comes. There is, however, this difference, that all the contractors in a city do not want to borrow simultaneously nor for the same period, whereas the wants of all the farmers in a county are alike, whence it results that a small amount of money goes the rounds of the contractors and accommodates all; but the farmers borrow together and pay back together. There is another difference. The money lent in a city to A returns into bank in the shape of deposits by B, C, and D, whereas money that goes into the country passes from hand to hand and performs a circuit before it is again deposited.

COUNTRY AND CITY BANKS.

According to this view of the subject, it is obvious, that circulation is to a country bank what deposits are to a city bank. Where population is dense, and banks are accessible, all cash balances go into bank and constitute deposits, so that no considerable circulation is outstanding; but where population is sparse, and communication irregular, or slow and infrequent, where banks are few and distant, everybody needs to keep a supply of money about him. Hence in such communities there is always an outstanding circulation, but there are few deposits. It will now appear why national banks are not adapted to the needs of agricultural communities, and why, especially, they have not been established generally at the South. These banks are admirably contrived to meet the requirements of communities where industry is varied, trade active, and speculation lively; the safeguards

thrown around them by the law are not only important in securing prudent administration, but they encourage and attract deposits, and thus utilize the whole money of the community. The circulation they emit is a profitable privilege. It is not a convenience to the public. On the contrary, for every $80 of circulation $100 has been locked up in a government bond. A national bank starting with $1,000,000 in cash gets but $800,000 effective circulation—a loss of $200,000 of currency to the community, unless the bonds happen to have been bought there. In agricultural communities, on the other hand, where there are no deposits to be attracted, and where money capital is scarce, but where currency is needed at certain times, and for certain seasons and purposes only, national banks are out of place. They reduce the currency, as has been seen; they have no elasticity of circulation, they depend upon deposits, and, therefore, are disqualified for making the only sort of loans a farmer needs,—loans payable after harvest.

TOPICS OF THE TIME.

These are the large topics upon which the South will seek and find community of interest, concurrence of opinion, and harmony of action with other sections; these will take the place of dead issues in her newspapers and debates, as well as in her relations to the rest of the country; and when these measures prevail, as prevail they must, because they rest on truth and embody justice and good policy, the South should, according to all commercial and economic principles, attain to great prosperity,—a prosperity which cannot fail to be beneficent to the whole country, because it cannot be attained without the aid and concurrence of all.

THE OPPOSITION IN THE SOUTH TO THE FREE-SCHOOL SYSTEM.

A Paper read before the American Social Science Association, at Saratoga, September 6, 1877, the subject under discussion being, "The Question of Education in the Southern States."

BY GEN. T. M. LOGAN, OF RICHMOND, VA.

Public instruction being the subject of greatest educational interest, at present, in the Southern States, it is proposed in this paper to consider: (1) The conditions peculiar to the South, which occasion opposition to public schools; (2) Objections advanced in the Southern States against all governmental instruction; (3) Some misapprehensions relating to the negro which increase race prejudice, and thereby strengthen the opposition to the free-school system; (4) The demand for identical courses of instruction for both races, which further strengthens the opposition to the free-school system in the South.

1. Opposition to public instruction in the South prevails mostly in country districts, where the school system is inefficient. It is not so general in villages and towns, where the schools are of higher standard; while in cities, where the system is most efficient, the opposition is scarcely perceptible. In thinly settled districts, the schools are necessarily few and widely separated; while salaries are too small to command the services of competent teachers. The inefficiency of country schools is exaggerated by comparison with those of the cities; and tax-payers oppose appropriations for their support. The sparse population of country districts, by thus affecting the efficiency of schools, occasions opposition to public instruction in the South. But as private schools could only be sustained at increased cost, the public-school system is really most needed in poor and thinly settled districts.

The impoverishment of the Southern people is another condition which occasions opposition to public instruction. With taxable values largely depreciated, the South is, also, heavily indebted; and the free-school system is opposed by many, because it necessitates increased taxation.

But the principal opposition to public instruction in the South arises from the presence of the freedman. Colored schools must, under the law, be equally sustained with those of the whites; and hence aversion to educating the freedman occasions opposition to the whole system.

In consequence of these local conditions, decided opposition exists in the South to the free-school system, although the necessity of governmental instruction is conceded in all other civilized communities.

2. The principle of non-interference by government presents the only objection advanced in the South against public instruction which deserves consideration as an argument, all others being mere appeals to class or race prejudice. The fallacy of this application of the Spencerian doctrine is apparent; but as the Southern people are over-influenced by theory in politics, such theoretical objections against governmental instruction should be answered and removed.

Principle should not be deserted for policy; but to sustain principle against policy does not require unyielding adherence to theory. Political science, when applied, is wholly experimental; while general theories of government are necessarily predicated, according to Spencer himself, on a state of society where the social factors are perfect citizens. All political theories must yield to the facts in each particular community. The theorist who would blindly follow general principles, regardless of peculiar circumstances, will be visionary and dangerous in practical politics: from similar cause the Carolina Constitution of Locke was valueless and abortive. The least government possible is the best; but good government is the object in view; and whatever is really essential to that end must receive governmental attention.

The voting power should, on theory, be intrusted only to enlightened citizens; but, in free countries, suffrage has already been extended to large classes who, without free schools, would be unenlightened: therefore, as suffrage cannot now be restricted, popular governments must educate the masses.

Suffrage having been enlarged in advance of educational qualifications, theory has been violated, and society placed in a transitional state of great peril. Private exertions being inadequate for the emergency, governmental action is necessary to avoid this danger, which threatens social destruction; and free-school instruction is the only available mode of qualifying the people as sovereign voters.

These views apply with peculiar force to the political condition of the South, where an illiterate race, unaccustomed to the responsibilities of citizenship, have been made voters. The negro cannot provide for the education of his children; and government, as a political necessity, must undertake it. Jeffersonian principles may, theoretically, condemn governmental instruction, although Jefferson advocated the free-school system; but neither Jeffersonian, nor any other theory of government, ever contemplated the contingency of ignorant freedmen

becoming voters. The military should, on theory, be subordinate to the civil authority, and this principle is held sacred in all free countries; but there is never hesitation in ignoring it when anarchy threatens or insurrection prevails. In like manner, theoretical objections against public instruction must be ignored, when the ignorance of the freedman imperils the safety of society.

Admitting that the evils of governmental interference exceed the political advantages of better education; yet the industrial necessities of the age force every progressive government to educate the people. Wherever public schools have been established, the industrial classes, becoming more intelligent, have proved more skilful and efficient; and all competing countries must likewise establish public schools, or be supplanted in the markets of the world.

Before the general introduction of free schools, British laborers were the most intelligent in Europe, and the industrial supremacy of England was unquestioned. But when the laboring classes of other nations became more enlightened in consequence of public instruction, Great Britain experienced closer competition in her leading industries, having adhered to the theory that government should not undertake the education of the people. At the Paris exhibition of 1867, it became apparent that England was losing her industrial pre-eminence. In many of her manufactures she was excelled in quality, and undersold in the market. There was no disputing the fact; there was no mistaking the cause. An exhaustive report by a special committee of parliament gave the explanation: the free schools had elevated the laboring classes of competing nations. As an industrial necessity, the present free-school system of England was subsequently inaugurated.

Thus, progressive countries are forced to adopt some system of public instruction, or be distanced in the industrial race of the nations.

Furthermore, in America, the general government does not control public instruction, and thereby many of the objections to governmental interference are removed. It is one of the advantages of divided sovereignty, that many affairs of public interest may be conducted by local authorities, when their control by the central government might be objectionable. Even our State governments exercise only a general supervision over public instruction, the details of administration and a part of the taxation for its support being intrusted to municipal and township authorities.

The usual objections to educating the masses are advanced in the South, but they apply equally to other communities, and have been repeatedly refuted. They are generally based on the assumption that

education is the privilege of the few, and most of them are mere appeals to class prejudice.

3. But as the opposition to the free-school system in the South is due principally to the presence of the freedman, so the objections advanced derive their influence chiefly from race prejudice.

It is insisted that the education of the negro by public instruction will not prove advantageous to society; but no reasons are assigned why he should be an exception to the rule, that the standard of society is always advanced by the education of the people.

All objections to public instruction in the South apply equally to both races; but to avoid antagonizing the whites, they are usually urged against educating the freedman, and thus the appeal is made to race prejudice to strengthen opposition to the free-school system. The whites would not intentionally be unjust to the blacks, even as a class, while towards them as individuals the kindest feelings prevail. But race prejudice, which naturally exists, has been increased by misapprehensions regarding the freedman and his position as a distinct element of society.

Although the "war of races," which seemed imminent during reconstruction, has been avoided, race antagonism, to some extent, remains, and the idea still prevails that it is unavoidable. A social conflict may exist while the relations of the races are being adjusted; but, there being no permanent hostility of interest, no race antagonism need continue.

The abhorrence of the whites to amalgamation, also, increases race prejudice, and strengthens the reluctance to educating the freedman. It is often broadly asserted, that, slavery being abolished, the races cannot live together without extermination of the inferior, or amalgamation of the two. But neither result need be expected in the South, where the conditions are unprecedented.

The Indian was exterminated because his nature could not conform to the usages of civilization; but the negro has so far conformed to the usages of civilization as to live in a civilized community.

The natives of South America amalgamated with the Latin races; but a similar result is rendered impossible in the Southern States, by the greater race differences between the negro and the Teuton; while, furthermore, in preserving race purity, the Teutonic have always been more scrupulous than the Latin races.

Miscegenation would be the greatest curse that could befall the South; and the importance of averting such a calamity cannot be exaggerated. But it could not be prevented, if imminent, by keeping the freedman debased, nor will it be caused by elevating him. The safety of the South against amalgamation lies in the race prejudice,

implanted by nature to preserve race purity; and this prejudice, existing equally strong with the uneducated whites, will not be weakened by educating the freedman.

Much of the prejudice towards the freedman would be removed, if his relations, as a distinct element of society, were better understood. Many who now deplore the presence of the colored man, as a great social evil, exalt the old *régime*, because of its alleged influence in raising the social standard of the whites; and yet, if the negro formerly exerted a beneficial influence on society, the influence of the freedmen now, as a distinct class of free laborers, should tend more strongly to elevate the white race.

When two races live together, as in the Southern States, in full equality under the law, each will take that grade in the social economy to which its race qualifications entitle it: each will find its ethnological level. In the South full civil equality exists, and all spheres of life are open to both races; but, in the race competition, the whites occupy the higher plane of life, the blacks occupy the lower.

It is generally assumed that ethnological superiority of the whites thus places them on the higher plane in the social economy; although limited race education and advantages would account for the blacks occupying *now* the lower plane. But whatever the explanation, whatever the cause, the fact exists. Practically, there are two classes in the South, as clearly defined as if established and rigidly preserved by caste laws. The whites, in effect, constitute an upper caste, without the existence of laws giving caste privilege; while race prejudice prevents amalgamation, and preserves the class separation into two distinct social strata.

This classification not being established arbitrarily, the whites, as a class, may reap all the advantages, if any exist, of the caste system, without necessarily experiencing the usual evil influences of caste laws.

Full civil equality existing, race competition, stimulated by race pride of the whites, will prevent that enervation of the privileged class which is usually caused by the caste system. The lowest labor on the industrial scale being performed by the freedman, the lowest occupations of the whites are of higher grade than those of the laboring classes of other communities; and hence the average employment of the white race in the South should be of a higher order than in other countries.

Although the type, or social standard, of a class is not absolutely determined by its occupation, a higher grade of employment gives an advantage, which will be controlling when all other conditions are equal, and the favored class avails itself of its superior opportunities.

It has been objected, however, that the education of the negro will tend to efface this caste distinction. But race superiority of the whites, if existing, cannot relatively be affected by the free school system; and, as the freedman raises his position in the industrial scale — thus further relieving the whites of the lower grades of labor — the average occupation of the white race will be higher in proportion. And thus, the whites constituting the upper, the blacks the lower, social strata, the white strata might be elevated by raising the colored strata below.

But the social standard of the community, as a whole, depends on both of the race elements, which, together, constitute the society. The type of the white race might be higher, because thus relieved of the lowest duties of life; but this advantage may be at the expense of the whole society; for, the standard of the colored race might be so low, as to produce a low social resultant of the two race elements.

If, however, the blacks are qualified to perform, efficiently, their part in the social economy, this caste allotment of social duties might prove advantageous to southern society, as a whole, on the principle of a division of labor applied to races. While ethnological inferiority may place the colored man in the lower plane of life, in that lower plane he may attain the highest efficiency. If it be conceded that he has, by nature, qualifications requisite to make him an efficient laborer, differentiation between the races might result in greater fitness of each, respectively, for its special sphere in life; as, in the case of individuals, a division of labor produces greater fitness for special duties. Those, therefore, who value class distinction, should be the last to object to the presence of the freedman, assuming, as they do, his inherent race inferiority.

It has been generally believed that the freedman would entail evils on the South, and these apprehended evils have been greatly exaggerated, thus increasing the race prejudice of the whites; while, as an element of society, he really contributes advantages which have all been ignored.

Communism is regarded as the social rock on which modern civilization is in danger of being wrecked; and, recently, the agrarian tendencies of labor unions, in America, have aroused the gravest apprehensions. But the freedman promises to be a conservative element of society—his presence tending to restrain the growth of communism. The southern limits of the strikes and riots, in the late railroad disturbances, were almost identical with the color lines on the census maps; and, although the tendency to such combinations and excesses varies with density of population, the real protection of the South arose from having two antagonistic races constituting her in-

dustrial classes. The white and colored employés will not combine against their employers, because antagonism is stronger between the races than between capital and labor—the white engineer being more identified with the railroad proprietor than with the colored brakesman at his side.

Her industrial classes being thus divided by race differences, the South has less to fear than other communities, from the growing evil of labor unions; while, from the same cause, she has less to apprehend, politically, from the communistic tendencies of the day.

For more than a century, the vexed question of the negro has perplexed the first intellects of the South; and the problem remains unsolved. But the freedman is now a citizen and voter; and self-interest should prompt the whites to prepare him for greater usefulness.

As a laborer, ignorance is his greatest deficiency: this would soonest be removed by the free school system.

As a voter, the freedman is liable, from ignorance, to be misled by demagogues; but, when taught to read, he is brought within the influence of the press, which is conservative, because controlled by the property-holding classes. Therefore, his greatest deficiency as a voter, also, would be soonest removed by the free school system.

All arguments usually advanced in favor of public instruction apply with greater force in the case of the negro, because of his greater deficiencies. And thus, every consideration of the subject leads to the conclusion, that the future welfare and prosperity of the South demand the education of the freedmen by public school instruction.

4. Races, like individuals, require education; and methods of instruction should be adapted to their ethnological condition. But the friends of the freedman insist that the same courses of instruction should be provided for each race, although the education of the negro has only commenced, while the Anglo-Saxon has received the civilized training of centuries. To undertake the race education of the freedman by a system adapted to the whites, would be like placing a pupil in the highest grades before he had received primary instruction.

Regular, methodical labor is a characteristic of civilization. The wants of savage life are supplied, as they arise, without any forethought for the morrow; but, as a race advances in civilization, the habit of labor is gradually acquired, while the incentives to industry increase with the multiplying wants of a higher standard of life. The negro, however, has not become habituated, as a race, to voluntary labor. His limited wants can be easily supplied, and the race in the South is liable to relapse into the idleness of barbarism, unless each generation is trained to labor. But the habit of physical labor is

sooner acquired, by a race, as well as by an individual, than that of mental application. Hence, the leading aim in the education of the freedman, in his present condition, should be to train him to habits of industry. The violation of this principle explains the fact, which has caused so much concern among their friends in the South, that the freedmen who receive the highest education often prove the most useless citizens. Having received only "book education" at school, they enter life without habits of industry, inherited or acquired, to protect them from vagrancy. It is this fact, now universally conceded, which excites the greatest alarm for the future of the free school system in the South. Education does not induce idleness; but it is alleged that when the freedman regards himself qualified to earn a support by mental work, he is unwilling to accept manual labor. He cannot secure employment suited to his supposed acquirements; and he becomes an idle and unproductive member of the community. His idleness, the more noticeable because of his education, creates prejudice against public instruction; while, to explain the evil as a result of an unwise course of instruction, will avail little after the public mind has accepted it as an effect of the free school system itself.

It is further urged that the freedmen, as individuals, do not at present require the same education to prepare them for their labor in the lower sphere of life, as that needed by the whites to prepare them for their duties in the higher. Except as preachers and teachers for their own race, there exists no demand for the services of the freedmen in the higher occupations, however qualified they may be by education and ability. Why then, it is objected, spend time and money in preparing them for positions which they will not occupy?

The freedmen are now demanding high schools, wherever such schools are provided for the whites, without considering whether they are really needed; but instruction unsuited to the condition of the race only strengthens the opposition to their education. A vigilant minority are eager to destroy the entire system of public instruction, and the friends of the freedman should heed the warnings of experience.

If, during the civil rights agitation, laws had been passed enforcing mixed schools, the opposition of the whites would have caused the abandonment of all governmental instruction in the South. Prudence overruled, then, the clamor for mixed schools: prudence should overrule, now, the clamor for similar instruction for both races.

When individual freedmen evince special aptitude, every opportunity should be afforded for their education, especially when their acquirements are in demand; but the free school system should be adapted to the general wants and not to exceptional cases.

There should be no restrictions on his education, but the question is:

What course of instruction, which is practicable, will be most advantageous to the freedman in his present condition? The system would be only tentative and provisional; for, as the race advanced, the education should be changed to suit their changed condition.

In the language of one who has devoted his life to the education of the freedman: "An elaborate course of study, making them polished scholars, would unfit our graduates for the hog and hominy fare and lowly cabin life that awaits most of the workers in our poor and sparsely settled country."

"Education is not so much what he needs as training, drill, and wholesome discipline." *

It is a grave mistake to attempt to "Europeanize" the African, in efforts to elevate him. On this subject Edward W. Blyden, one of the most cultured of Africans, has expressed himself in the strongest terms against making the African "a parasite upon the European," and urges his development "upon the basis of his own idiosyncracies."

These views, deductions from general principles, are confirmed by experience. In consequence of having acquired habits of cleanliness, of order, of industry, the graduates of the "Hampton Normal and Agricultural Institute" of Virginia are in constant demand. The policy to be pursued is clearly indicated. Beyond primary instruction, industrial education, similar to the Swedish system, is the education which the freedman needs. The adoption of such a course of instruction, the only one suited to his present condition and wants, would result in preparing the freedman for greater usefulness, and in making him a more valuable citizen; while the success which will then attend public instruction, would silence all objections, and eventually remove opposition to the free school system in the South.

* Gen. S. C. Armstrong.

THE NAVIGATION LAWS OF GREAT BRITAIN AND THE UNITED STATES.

Read September 6, 1877.

BY HAMILTON A. HILL, OF BOSTON.

It is a remark of Buckle, that the great progress of modern times has resulted more from the repeal of statutes which previous generations have enacted, than from the enactment of new statutes. It will be made to appear in the present paper, if possible, that the repeal of the navigation laws of England and the United States, so far as it has been carried, has been in the line of progress; and, that something still remains to be done of the same work, which, when accomplished, will also be in the right direction.*

The first enactment of a navigation law in Great Britain was during the Commonwealth. It was levelled especially against the Dutch, then at the height of their commercial prosperity; and the motives which prompted it, probably, were partly commercial and partly political.† As Motley says, "the republic was seaborn and self-sustained." It was, at the opening of the seventeenth century, the first commercial nation in the world. It had acquired the supremacy of the seas, and had the carrying trade for all nations; the Protector, therefore, was determined to embarrass and to injure them. On the other hand, there was a desire to punish them, according to some authorities, for their loyal support given to Charles I., and, according to others, for their refusal to accede to a proposition for their legislative and executive union with Great Britain.

Hume says: "Cromwell had revived the chimerical scheme of a coalition with the United Provinces; a total conjunction of government, privilege, interests, and counsels. His project appeared so wild to the States that they wondered any man of sense could ever entertain it, and they refused to enter into conference with regard to a proposal which could serve only to delay any practicable scheme of accommodation."

In the "Industrial History of the Dutch" this is referred to at

* The following works have been consulted in the preparation of this paper: Lindsay's History of Merchant Shipping; Annual Register; Hume's History of England; Industrial History of the Dutch; Palfrey's History of New England.

† Dr. Palfrey points out that this law had a pattern nearly three centuries old. An act of the fifth year of Richard II. provided that "to increase the navy of England, which is now greatly diminished, ... none of the King's liege people should from henceforth ship any merchandise, in going out or coming within the realm of England, but only in ships of the King's liegance."

length, and the failure of the mission of Strickland and St. John, who were sent in 1651 as envoys to the Hague, avowedly to settle the old difficulties between the two nations, but with secret instructions to open negotiations for an incorporated union, is said to have led directly and immediately to the passage by Parliament of the act of navigation, St. John taking a leading part in carrying the measure through. "Plausible pretences in abundance," it is said, "were of course set forth for this enactment, many of which continued to find advocates long after the irritations and jealousies that led to its inception were forgotten; but the feelings that actuated its author are not doubtful, and the injustice and impolicy of the Parliament in seeking thus to avenge its wounded dignity, and to pander to the smouldering jealousy of the Dutch, which was cherished by a certain portion of the community, ought not to be forgotten."

Mr. Huskisson, in a celebrated speech made in the House of Commons in 1826, said: "The object of the navigation laws was twofold. First, to create and maintain the great commercial marine of this country for the purposes of national defence; and, secondly, an object not less important in the eyes of statesmen, to prevent any one other nation from engrossing too large a portion of the navigation of the world." This is the mildest statement of the case, but even from it, we learn that these laws had their foundation in selfishness and prejudice, and that they were designed to foster and promote English prosperity at the expense of the prosperity of all other nations.

The original act of the Commonwealth was followed by other restrictive and prohibitory laws during the reigns of Charles II. and William III., and by various additions and modifications in later times, all which it is not necessary to our present purpose to trace. They all rested on the assumption as a fundamental principle, that "the monopoly of the colonial trade, the long voyage trade, and the indirect European trade," should at all events be made secure to the merchants and shipping of Great Britain. In 1847, when the question of repealing these laws as a whole began to be seriously entertained by the British people and Parliament, their provisions, in general terms, were as follows: —

First. Certain enumerated articles of European produce could only be imported into the United Kingdom, for consumption, in British ships, or in ships of the country of which the goods were the produce, or in ships of the country from which they were usually imported.

Second. No produce of Asia, Africa, or America could be imported for consumption into the United Kingdom from any European port in any ships whatever, and such produce could only be imported from any other place in British ships, or in ships of the country of which

the goods were the produce and from which they were usually imported.

Third. No goods could be carried coastwise from one part of the United Kingdom to another in any but British ships.

Fourth. No goods could be exported from the United Kingdom to any of the British possessions in Asia, Africa, or America (with some exceptions with regard to India) in any but British ships.

Fifth. No goods could be carried from any one British possession in Asia, Africa, or America to another, nor from one part of any such possession to another part of the same, in any but British ships.

Sixth. No goods could be imported into any British possession in Asia, Africa, or America in any but British ships, or in ships of the country of which the goods were the produce; provided, also, in such case, that such ships brought the goods from that country.

Seventh. No foreign ships were allowed to trade with any of the British possessions, unless they had been specially authorized to do so by order in council.

It will be seen from this summary, that as late as the year 1847, these laws and the system of legislation to which they belonged, secured for British tonnage the monopoly of a large part of the import trade of the United Kingdom; nearly all the trade, both import and export, between the mother country and the colonies; and the entire trade among the several colonies with each other. Somewhat of their extreme rigor had then been abated, but, as they stood, they were full of inconsistencies and anomalies, and while the shipping interest of the United Kingdom, as we shall see, failed to develop its best possibilities under their operation, they hampered and hindered the natural and healthful course of general commerce. For example, an American vessel might carry American cotton to England direct; but if such cotton were landed at a continental port, no ship of any nationality could afterwards land it for consumption in England. The grain of Russia, if once landed in Prussia, or in the ports of any other nation, was absolutely prohibited in England, however great the demand there might be for it at the time. Palm oil could only be exported from the United States to England, when there was a British vessel on the spot available for charter. In 1839, the price of coffee was exceptionally high in the London market; large quantities of Java and Dutch colonial coffee were in store in Amsterdam, but it could not be brought into England because it had been landed at a continental port. Under these circumstances, we are told, a British ship was chartered, sent to Amsterdam, there loaded with coffee and dispatched to the Cape of Good Hope, where the cargo was landed, actually or constructively, and, by some process recognized by the law, became naturalized pro-

duce of that colony. It was then carried to England, and coming direct from a British colony in a British ship, was admissible for home consumption. It is said that many thousand tons of merchandise were thus sent cruising half-way across the globe, involving an enormous waste of capital, in order that the letter of the law might be fulfilled, although its spirit was nullified constantly.

It has been well said by an English writer,* "No one can rise from a study of these laws without a feeling of amazement at the trouble our ancestors gave themselves to 'beggar their neighbors,' under the erroneous impression which too long prevailed, that, by their ruin, our own prosperity could be most effectively achieved. It is, therefore, not surprising that under such legislative measures, maritime commerce was for centuries slow in growth, and that British merchants and ship-owners frequently suffered quite as much through the instrumentality of laws meant for their protection, as their foreign competitors against whom these regulations were levelled."

It is worthy of particular note, that previously to the year 1786, "British ships" were held to be those owned by the people of England, Ireland, etc., or, if built in the colonies, owned by the people thereof, being British subjects. In that year, an act was passed by which it was provided that for the future, no ships should be entitled to the privilege of British ships, but such as were British-built, as well as British owned and navigated, exception being made in favor of foreign ships built before May, 1786, and belonging at that date to English owners. There was, however, almost from the first, an important discrimination in favor of British-built tonnage, in connection with the colonial trade. By an act passed during the reign of Charles II., the importation of goods from Europe into the British possessions, was forbidden except in British-built vessels; and by the Plantation Act of William III., all importations into, and exportations from, these possessions, were required to be in vessels British-built, British owned, and British navigated. The absolute restriction of the coasting trade of the United Kingdom to British-built vessels, was not introduced until the consolidation of the various acts in 1825.

We are not to suppose that these oppressive and noxious laws were repealed without a severe struggle. So far from this being the case, their continuance was contended for by certain classes and interests with the utmost pertinacity. The motion of Mr. Ricardo in the House of Commons, in February, 1847, for a select committee of inquiry into their operation, was stoutly resisted, but was carried by a decided majority. Parliament was dissolved before this committee completed

* Mr. W. S. Lindsay, late M. P. for Sunderland.

its work, and, in February, 1848, a similar committee of inquiry, but in the protectionist interest, was appointed on the part of the House of Lords, on motion of the Earl of Hardwicke. The struggle was renewed in the House of Commons in May and June, 1848, when a test motion, made by Mr. Herries, to maintain the fundamental principles of the navigation laws, was defeated, and Mr. Labouchere's motion to go into committee of the whole House prevailed. Mr. Labouchere introduced his bill, blotting every restriction on navigation from the statute book, except as related to the coastwise trade of the United Kingdom, on the 14th of February, 1849, two years after the motion for Mr. Ricardo's committee prevailed. The measure was opposed with great energy and ability at all its stages, but it finally passed the House of Commons on the 23d of April following, by a vote of 275 to 214, and the House of Lords on the 9th of May, by a vote of 173 to 163. We shall have occasion, in another connection, to notice some of the arguments urged against repeal; but it may be said here, that the opposition to it, for the most part, came from the shipowners of the United Kingdom, who saw nothing but ruin before them if it should become an accomplished fact, and some of whom actually sold out their tonnage at the best price it would bring, when it was carried. In Liverpool, petitions against the bill were signed by 27,000 persons, while a counter petition obtained only 1,400 signatures. In London, petitions against the bill received 23,000 signatures, the names of Thomas Baring, Charles Baring Young, Frederic Huth & Co., and Masterman, Peters & Co., heading the list. The two members for Liverpool lost their seats at the next general election, for having voted, in this instance, against the wishes and the supposed interests of their constituents. A few prominent shipowners, like Mr. Lindsay and Mr. Green, favored the proposed reform, and Sir Francis Baring, head of the great house of Baring, and then a member of the government, gave it his support. A few conservative statesmen, also, were found on the same side,—the Duke of Wellington; Mr. Gladstone, then occupying a seat on the cross benches; and, of course, Sir. Robert Peel. Lord Brougham voted against repeal.

The navigation laws of Great Britain had assumed, with reference to the colonies, that in exchange for the general protection afforded to them by the imperial government, the course of their trade and commerce should be directed with a view to the paramount advantage of the mother country. The great London merchant, Sir Josiah Child, although a friend of religious and political liberty, and probably a non-conformist, in his "New Discourse of Trade," written in 1669, said: "Colonies and foreign plantations do but endamage their mother kingdoms, when the trades of such plantations are not con-

fined to their said mother kingdoms by good laws, and the severe execution of those laws." The Act of 1660 provided, first, that the whole trade of the plantations should be carried on in British ships only, and secondly, that the principal productions of these plantations should be allowed to be exported only to the mother country, or to some other plantation. These rules, somewhat modified, and others equally stringent, were in force in 1776; and few English or American statesmen at the present day, will be disposed to call in question the opinion expressed by Earl Grey, during the debates to which we have referred, that "the navigation laws were among the proximate causes of the revolutionary struggles which ended in the independence of the United States."

These laws were the occasion of constant irritation in the colonies, almost from the first. It is true that New England always had the good-will of Cromwell, and that so far as it was concerned, as the historian tells us, the Protector allowed the navigation law, which pressed hard on the Southern colonies, to become a dead letter, its people receiving the commodities of all nations free of duty, and sending their ships at will to the ports of Continental Europe. But the exceptional favor thus enjoyed by the merchants of Massachusetts and its sister colonies, no less than their great enterprise and commercial ability, seems to have stirred up much bitter feeling at home. Sir Josiah Child spoke of New England as "the most prejudicial plantation to the kingdom," because of its competing in many of its exports, with the productions of the mother country, because of its exemption, in consequence of chartered privileges and of a legal indulgence, from a strict administration of the navigation laws, and because of its capacity for building ships and rearing seamen, and of its consequent naval strength.

More stringent enactments were passed, as we have said, almost immediately upon the accession of Charles II.; and under the changed circumstances which had arisen, the General Court of Massachusetts sought to guard the colony against the more vigorous attacks which it might now expect from the commercial interest in England. It therefore, as we are told, "repealed certain laws, which had hitherto made their harbors free 'to all ships which came for trading only from other ports'; and authorized the Governor for the time being, by himself and such officer as he should appoint, 'to take effectual course that bonds be taken of all shipmasters coming hither as that act (the Navigation Act) required, and returns made, as was there required, to His Majesty's customs, before they had liberty to depart, that so this country might not be under the least neglect of their duty to His Majesty's just commands.'"

In 1672, officers were appointed to carry into effect the provisions

of the Navigation Act, to receive such bonds as were required, and to make seizures under the law, but it is certain that this duty was not willingly or even strictly performed. Edward Randolph, the agent sent over by Charles II. in 1676, to inquire and observe as to all that was going on, reported to his master, complaining of the "wrongs and usurpations of the Massachusetts," and "how small the respect had been wherewith their people had treated His Majesty since his happy restoration, and what daily breaches were by them made upon His Majesty's acts." Randolph formally complained to the Governor also, of the infractions which he had observed of the acts of navigation. He had seen "several ships that were arrived at Boston, some since his being there, from Spain, France, Straits, Canaries, and other parts of Europe." The Governor's reply, as given in Randolph's words, was as follows: "He freely declared to me that the laws made by Your Majesty and your parliament obligeth them in nothing but what consists with the interest of that colony; that the legislative power is and abides in them solely to act and make laws by virtue of a charter from Your Majesty's royal father, and that all matters in difference are to be concluded by their final determination, without any appeal to Your Majesty; and that Your Majesty ought not to retrench their liberties, but may enlarge them if Your Majesty please."

In 1682, Edward Randolph arrived in Boston as Collector of the port, and the General Court then ordered that the Acts of Trade and Navigation should be forthwith published in the market-place by beat of drum, and "that all clauses in said acts relating to this plantation, should be strictly taken notice of and observed."

It was about this time that at the instance of the merchants of Bristol and Liverpool, the Board of Trade was established to regulate the national and colonial commerce. This body had no executive power; it could hear complaints, but it had almost no responsibility; its members were not always judicious in their action, even if they were unprejudiced in their judgment; and it accomplished little, if anything, in the way of conciliation. The spirit of dictation on the one side, and that of resistance on the other, were maintained with equal persistency and fostered with equal strength of determination, and at length, late in the eighteenth century, the inevitable catastrophe and separation took place.

When the American States ceased to be dependencies of the British Crown, their tonnage, of course, came to be treated, under the operation of the British navigation laws, precisely like that of other foreign powers. Their commercial intercourse, maintained on a footing of freedom with the other colonies in North America, and with the West Indies, had been extensive and profitable, and they were desirous

naturally of continuing it with as few legislative obstructions as possible. To meet the changed condition of affairs, Mr. Pitt, as Chancellor of the Exchequer, in 1783, introduced a temporary measure to regulate commercial intercourse with the now independent States of North America. His bill proposed to allow American vessels to import into the British colonies all articles of the growth, produce and manufacture of the United States, and to export any articles from the British colonies to the United States. But while this measure was under the consideration of the House of Commons, the ministry to which Mr. Pitt belonged went out of office, and their successors contented themselves with passing an act vesting in the Crown alone the power of regulating trade with the United States.

As was to be expected, earnest discussion immediately arose with regard to the manner in which this power of the Crown should be exercised. The West Indians urged the restoration of the old *status*, representing that they would suffer most seriously if forbidden to trade with the United States. On the other hand, the loyalists of the remaining North American colonies pleaded that they were quite able to supply the people of the West Indies with all they required, and prayed for a continuance of the monopoly which they had been enjoying during the war. These narrower views of the loyalists were supported by the ship-owners of Great Britain, who thought that if American vessels were allowed to export West India produce, they would convey it to foreign countries as well as to the United States, and thus secure a strong position as carriers upon the ocean. The Board of Trade, unfortunately, decided the question in favor of the loyalists and the ship-owners, and against the United States; and although in 1785, and again in 1789, the American government made renewed overtures for participation in the colonial trade, the policy of monopoly and exclusion was rigidly adhered to. It is not surprising that this led to a demand, on the part of the people of the United States, for retaliatory legislation against British commerce and navigation; in compliance with this demand, Congress, in 1789, passed acts levying tonnage dues and tariff duties which discriminated largely in favor of American shipping. These measures were modified by the treaty of 1815; but no disposition having been manifested by Great Britain to abate, in material points, the severity of its restrictive system, Congress passed a law on the 1st of March, 1817,* which was substantially a counterpart of the English navigation laws. Its character as a retaliatory act, provoked by hostile legislation on the part of other nations, is made apparent by the language of one of its provisions, as follows: —

* A further act of similar purpose was passed in 1820.

"*Provided, nevertheless*, that this regulation shall not extend to the vessels of any foreign nation which has not adopted, and which shall not adopt, a similar regulation."

On this point the English historian of "Merchant Shipping," from whom we have already quoted, says, with regard to the United States: —

"Nor can there be any question but that they were fully justified in these retaliating measures. If one nation insists on excluding the vessels of other nations from their trade, they must naturally expect that the legislators of the countries whose vessels are thus excluded, will take similar steps, even to the injury of their own people; in fact, this is just what England did, when she prohibited her people from obtaining from other countries, at the lowest cost, the produce or manufactures essential for their existence."

A treaty had been negotiated between the governments of the United States and Great Britain in 1794, which, however, Congress did not ratify until 1796, by which it was provided that American ships might import into Great Britain such produce of the United States as was admissible in British vessels, but it did not open the colonies to American shipping. Nor was this colonial trade thrown open until 1830, when Congress, having passed a law to promote free intercourse with British North America, and the British possessions in the West Indies and South America, an order in council was adopted, authorizing vessels of the United States to import into the British possessions abroad, any produce of the United States from those States, and to export goods from the British possessions abroad to any foreign countries whatever.

The acts of Congress which exclude all foreign-built tonnage from registration under the American flag, and all foreign-owned tonnage from participation in the American coasting trade, were passed September 1, 1789, and December 31, 1792.

Upon the abolition of the navigation laws of Great Britain in 1849, the President of the United States, under authority of a law of Congress passed in 1828, promptly issued a proclamation reciprocating, in good degree, the liberal spirit of the recent legislation, and freely opening the ports of the United States, for all purposes of foreign trade and intercourse, to the vessels of all nations, excepting any, as in the case of France, which still discriminated against American tonnage. On the first of October, 1873, freedom of commercial intercourse was definitely established between the United States and France, and since that time, no discriminating dues have been levied upon any foreign vessels in United States ports, but all are admitted

and placed on the same footing as American vessels, with certain limitations now to be mentioned.

The laws of the United States, at present in force, place the following restrictions upon commerce and navigation:—

First. They reserve absolutely and exclusively for American-built vessels, owned and licensed under United States laws, the American coasting trade and the fisheries.

Second. They forbid the return to registration or license, under the flag of the United States, of ships which have been sold and transferred to the citizens of other nations.

Third. They forbid the issue of registry or license, under the flag of the United States, to foreign-built vessels, even when owned by, and belonging to, citizens of the United States.

We propose to refer to each of these a little more in detail.

1. The Coasting Trade.—The British legislation of 1849 opened to the tonnage of foreign countries, in competition with that of Great Britain, the trade between Great Britain and the colonies, and between one colony and another. It was hoped, and perhaps expected by Parliament, that Congress would so far reciprocate in this regard, as to throw open the trade between the Atlantic and the Pacific coasts of the United States. It was thought in England that the voyage from New York to San Francisco by way of Cape Horn, whether by strict legal construction a coastwise voyage or not, should henceforth be treated under American law, precisely as the voyage from London to Calcutta, by way of the Cape of Good Hope, was now to be treated under English law. The United States declined to take this view of the case, and further insisted on regarding as coastwise voyages the steam traffic between the Atlantic and the Pacific coasts by way of the Isthmus of Panama, which was thus made sure as a monopoly for American ship-owners. All this, and the American coasting trade, strictly so called, is still prohibited to foreign shipping. In this respect we have not followed the example of Great Britain, which, since 1854, has allowed the tonnage of all the world, if it would, to participate in the coastwise trade even of the United Kingdom.

2. Alienated Tonnage.— During the civil war, a large amount of American tonnage was sold to foreigners, and a large amount, further, was transferred temporarily, according to the intention, for its protection and preservation, to other flags. The tonnage thus transferred could not have been restored to American registration, probably, without special legislation; but at the close of the war a law was passed by Congress positively forbidding

its restoration to the privileges of the American flag. This was intended partly as punishment for the supposed disloyalty of those who had thus sought to cover and preserve their property, and to baffle and disappoint the roving privateers of the South in their search for prey, and partly as encouragement to the ship-building interest of the country, then suffering extreme depression as the result of the war, and other causes. It was believed that this tonnage, if not restored to the flag, would have to be replaced by new vessels of American construction, and that the demand thus created could be overruled for the benefit of American industry. But the law failed to accomplish what was expected from it, as legislation conceived in a narrow and selfish spirit, in the long run, generally does. The actual owners of this alienated tonnage found themselves excluded from the coastwise trade of their own country, and were put to some inconvenience, because compelled to maintain the ownership of their property, as it were, at arm's length; but they doubtless were soon able to accommodate themselves to these conditions, and their ships, so long as they have continued afloat, have helped to swell the tonnage returns of various nationalities, instead of those of the United States, to which they have really belonged. Their loss, after all, therefore, has been less than that of the country at large.

3. Foreign-Built Tonnage.—While many of the restrictions and retaliatory features of our navigation laws have been done away with, as we have seen, the prohibitory legislation of 1789 and 1792 still survives, and the American citizen, who would engage in ocean commerce as a ship-owner, is limited to the purchase and ownership of vessels of American construction. The citizen of Great Britain, or France, or Germany, or Russia, or almost any other nation, can buy a ship wherever on the globe he may find one suited to his purpose, and can secure for it the protection and all the privileges of his own flag; but the citizen of the United States cannot do this. He may, indeed, purchase a foreign-built vessel, and place her under some other flag more hospitable than his own, and hold her, as we have said in another connection, at arm's length; but only under exceptional circumstances is he willing to do this. It is true that while ships can be built as cheaply and as well in the United States as elsewhere, the American merchant may not seriously suffer under the pressure of these disabilities; but why, when a vessel is, for any reason, to be sold cheap, or with special adaptation for a particular trade, should he, of all others among the citizens of the various commercial and civilized countries on the face of the earth, be forbidden from competing, on equal terms, for a bargain or an advantageous purchase, because the keel he would control was laid in a ship-yard outside

the limits of his own nationality? Of course, when ships cannot be built in the United States on as favorable terms as elsewhere, as has been the case during much of the time within the last ten or fifteen years, the American merchant is virtually excluded from ship-owning and from the ocean-carrying trade, because no favoritism or monopoly can now be enjoyed in that trade, and the ships that cost the least and are the most judiciously managed must win the day.

The loss to the United States, since the close of the war, under these old-time and old-world restrictions, has been almost incalculable. Ship-owning under the American flag has been discouraged, and the capital formerly employed in it has been largely diverted to other pursuits; while, at the same time, ship-building in the protected yards has not been promoted. The establishment of American steamship lines on the Atlantic has been altogether prevented, and the development of steamship traffic under the American flag on the Pacific has been greatly retarded. The carrying trade of the oceans that wash our continent on either shore has been diverted to foreign bottoms, and we are dependent for the maintenance of our postal and other communication with other countries upon facilities afforded under foreign flags. The ships which float the pennant of freedom at their mast-heads carry all before them to-day, as did the gallant vessels of the Dutch, for many a decade, after the enactments of Oliver and Charles II. had been fulminated against them.*

We do not say that other causes have not contributed to the depression of American shipping interests, during the last ten or twelve years; but we do affirm, that but for the continuance of the particular restriction which we are now considering, these interests would to-day be much less depressed than they are. When, however, it is proposed to abolish this restriction, which, as we believe, has worked so much mischief, we are told that this would be to permanently break

* Sir William Petty, in a work entitled *Political Arithmetic* (quoted by Mr. Lindsay), published in 1691, says: "The extent of the shipping of Europe being about two millions of tons, I suppose the English have five hundred thousand; *the Dutch*, nine hundred thousand; the French, one hundred thousand; the Hamburgers and the subjects of Dantzic, two hundred and fifty; and Spain, Portugal, Italy, etc., two hundred and fifty thousand." In reference to the causes which led to the decline of Dutch commerce, its historian says: "Perhaps the most pernicious of all was the tax which, under various denominations, was imposed on shipping. The naval force of the United Provinces had long been supported by port dues and charges levied under the sanction of the admiralty, and, so long as foreign trade continued to increase, the weight of this impost was unfelt; but in seasons of depression or interruption of traffic by war, its mischievous tendency became palpable. To this was added the ill effect of taxes on the materials of ship-building, — timber, iron, hemp, and tar; and to the combined operation of these imposts, far more than to the hostile legislation of other countries, may be traced the decline of the shipping interest."

down our ship-building industry, to close our yards, to scatter our artisans, to weaken our power for naval defence, and to compromise the dignity if not the honor of our flag. It would be a sufficient answer to these allegations to say, that under no possible legislation could the state of things with regard to our shipping interest be much worse than it is, and that the existing law has most signally failed at a juncture when, if ever it was to be useful, much was to have been expected from it. But we prefer to point out that just such considerations were urged with, at the least, equal earnestness and pertinacity in Great Britain, when it was proposed to abolish like restrictions and disabilities there; and we think it a fair inference that the gloomy forebodings to which we now have to listen, will prove by and by, when free registration is enjoyed in this country, to have been as groundless as every one will now concede that the prognostications of evil were, which were made in 1849 with regard to British shipping interests, and the honor and safety of the British nation.

Let us see what was said by some of the opponents of change when the navigation laws of Great Britain were under discussion.

When it was first proposed, in 1821, to allow British ships to import non-prohibited articles from any part of the world, the proposal was, for the time, effectually resisted by English ship-owners on the plea that "the cheaply built and navigated vessels of other countries would carry the produce of America and Asia into continental ports, and leave the British ships only the small profit to be derived from its conveyance across the English Channel."

In 1844, English ship-owners complained bitterly of the privileges granted to colonial-built ships, the owners of which were on the same footing as those of vessels built in the United Kingdom. It was alleged that the latter, as costing a great deal more, were unable to compete successfully with the less costly ships of North America, and, therefore, legislative protection was sought, on the ground that the competition of these ships had materially lowered the rates of freight.

In the course of the debates in Parliament in 1849, Lord Stanley (afterwards the Earl of Derby) strongly objected to the proposal of admitting a foreign-built ship to British registry. "It was essential," he said, "to keep up the number and efficiency of our private building-yards, which would speedily decrease in number, were such a proposal adopted." He also entered a protest on the journal of the House of Lords, against the third reading of the bill, in which he said that "by discouraging the employment of British ship-builders, ships, and seamen, the bill tended directly to the reduction of the commercial marine, and thereby to the diminution of that naval strength which was the

main foundation of the greatness of this country, and the surest defence of its independence."

Admiral Martin testified before the select committee, as follows: "If the abrogation of the navigation laws left the ship-owner at liberty to build his ship in foreign countries, and he availed himself of that license, it would inevitably diminish the shipwright class in this kingdom; yet on this class the safety of England greatly depended."

Admiral Bowles, in his place in the House of Commons, said that "he was only strengthened in his opposition to the bill by what he had heard during the course of the debate. Our mercantile marine and our national marine were inseparably connected, and must stand or fall together. The proposal before the House, by endangering the one, menaced the destruction of the other."

Mr. Walpole said that "whatever gain might be reaped by individuals, the repeal of the navigation laws would imperil the safety of the country."

Mr. Drummond declared "the measure to be the last of a series inculcated by the Manchester school, the end and intention of which were to discharge all British laborers, and to employ foreign laborers in lieu of them,—foreign sawyers instead of English sawyers, foreign shipwrights instead of English shipwrights, and so on through the whole catalogue of employments." He added, that "if there was a Satanic school of politics, this was certainly it."

The Ship-owners' Society of London, in one of its appeals to Parliament, after expressing the opinion that the maritime greatness of England depended upon the maintenance of the navigation laws, said that if these laws were abolished, "Rule Britannia would forever be expunged from our national songs, the glories of Duncan and Nelson would wither like the aspen-leaf, and fade like the Tyrian dye; and as none but Yankees, Swedes, Danes, and Norwegian sailors would be found in our ports, who would there be to fight our battles and defend our sea-girt shores?"

Lord Brougham demanded of the Peers: "Are you prepared to abandon a system to which you owe so precious a possession, not only the foundation of your glory, the bulwark of your strength, but the protection of your very existence as a nation?"

Mr. Disraeli, soon to assume the leadership of the Conservative party in the House of Commons, on the death of Lord George Bentinck, said: "There was nothing more fatal to national interests, than the recklessness of ignorance. He would not, indeed, sing 'Rule Britannia,' for fear of distressing Mr. Cobden, but he did not think the House would *encore* Yankee Doodle." And, he concluded, "At least, I will not incur the responsibility by my vote, of endangering

that empire gained by so much valor, and guarded by so much vigilance,—that empire broader than both the Americas, and wider than the farthest Ind, which was foreshadowed in its infancy by the genius of a Blake, and consecrated in its culminating glory by the blood of a Nelson,—the empire of the seas."

All honor to the men who resisted and overcame this tremendous opposition, and who, in spite of declamation and argument, jeremiad and sarcasm, invective and obloquy, pushed through this great measure of reform. It is not necessary to recall their utterances. It is not necessary to quote from their speeches; but how amply are they vindicated in their enlightened and far-reaching action, by the vast industries which, for the most part, since that time, have been developed on the banks of the Clyde and the Tyne and elsewhere in the United Kingdom; by the improved character of British shipping, and by the advanced intelligence and skill of British seamen; by the unprecedented prosperity which, with occasional interruptions, the British ship-owning class has been enjoying; and by the steamship lines which plough the waters of every sea, and which have accomplished for British supremacy on the ocean, what the most formidable naval armaments never could have done.

Mr. Bright, at the unveiling, recently, of the statue of Cobden, erected at Bradford by an American merchant, gave a graphic description of what a policy of freedom and fairness, succeeding to one of seclusion and selfishness, has done for England.

"If," he said, "you cast your eye over the globe, what is it you see? Look at Canada, look at the United States, look on the Atlantic seaboard, or on the Pacific slope, look at Chili, look at the great and rich province of Bengal, look on the shore of the Black Sea and the Baltic; wherever rain falls or the sun shines, wherever there are markets and granaries and harvest-fields, there are men and women everywhere gathering that which comes to this country for the sustenance of our people; and our fleets traverse every sea, and visit every port, and bring us the food which, only thirty years ago, the laws of this civilized and Christian country denied to these people. You find in Holy Writ that 'the earth is the Lord's and the fulness thereof.' We have put Holy Writ into an Act of Parliament, and since then, of that fulness, every man and woman and little child in this country may freely and abundantly partake."

Is it not time for us in the United States to adopt more completely a policy which, within our own time, has been established and maintained in another great commercial country with such brilliant success? Our navigation laws were enacted in imitation of, and in retaliation against, the restrictive legislation of Great Britain. They

seemed to be necessary, for a time, as measures of defence, but they were adopted almost under protest. Any such plea of necessity as in the past may have been urged for their continuance, has long ceased to have force; and any useful purpose which, in other times, they may have served, has utterly disappeared from view. They are now only an anachronism and an hindrance. To the restrictions imposed by them upon the purchase and ownership of tonnage by American citizens, more than to any other one cause, must be attributed the fact that, while the steam commerce of other nations has been growing with marvellous rapidity, only two or three ocean steamers under the American flag are to-day engaged in the transatlantic trade, precisely the same number as there were in 1865, at the close of the civil war, and not so many as there were in 1855. It is their fault that almost countless millions of dollars have been paid by us to the citizens of other nationalities, for doing our ocean-carrying trade for us, a large part of which we ought to have been in a position to do for ourselves. It would seem to be the height of folly for us to cling pertinaciously to any remnant of this worn-out system of legislation, the operation and effect of which have been and are so manifestly favorable to our commercial rivals, actually building them up at our expense, and which seem to be injurious only to ourselves. It was said by the Marquis of Lansdowne, that restrictive legislation in England resulted from the desire to grasp at everything that could be obtained in commerce; "a desire," he added, "which had never been indulged without superinducing, again and again, its own punishment." The navigation laws of the United States, as we have intimated, may not have had their origin in just such a spirit as this; but their continuance on our statute-books during recent years has been prompted by narrow, selfish, and exclusive considerations, and the punishment which has followed has been most signal and severe.

THE TARIFF QUESTION AND ITS RELATIONS TO THE PRESENT COMMERCIAL CRISIS.

BY HORACE WHITE, OF CHICAGO.

Read September 7, 1877.

Discussion of the tariff question should undoubtedly be predicated upon the commercial and industrial condition of our country, which we all know is that of depression, discouragement, and even dismay. During the past four years the catalogue of bankruptcy has been drawn out in long lines of disaster. The industries of the country were never, in the memory of this generation, so smitten with paralysis. Our iron and coal trades are at the last gasp, as regards profitable employment to the labor and capital invested in them. Railway defaults have multiplied beyond all precedent, and the stockholders of these corporations have been pinched as they never were before. Our lake and river and coastwise carrying trades are in no better plight. The same distress prevails in the woollen trade, the lumber trade, the building trades, and the lesser branches of manufacturing industry. There has been a gigantic revolt of laboring men in the Middle and Western States, accompanied by bloodshed, pillage, and incendiarism, and the tramp, who was known five years ago only as a phenomenon of distant lands, like the gypsy and the brigand, has become one of the most dreaded institutions of the country. Real estate in cities and towns has fallen in price to such an extent that mortgages of five years' duration most commonly take the whole property and leave the mortgagor in debt. The invariable concomitant of this state of things is an extremely low rate of interest for money. One and a half and two per cent. has frequently been the highest rate obtainable on call loans in the city of New York, while mercantile paper has ranged considerably under six, and lately the spectacle was presented to us of a government loan being effected in our own midst at four per cent. to the extent of $68,000,000, after a few days' advertising in the newspapers. Such a plethora and surplus of unused capital was never before dreamed of on this virgin continent, so called. Agriculture and the trades most closely connected with it, are, perhaps, receiving fair returns for the capital and skill invested in them. These, and sundry branches of the export trade, are the only features in the dark landscape of our industry upon which the eye rests with any satisfaction. All else is a weary and aching mass of unemployed or half-employed capital, misdirected talent, and underpaid labor, to which

commerce gives the generic name of glut. After two centuries and a half of continuous immigration from foreign lands, even that source of gain has failed us, and some hundreds of our own more enterprising artisans have migrated within a year to Australia and the British islands, in search of employment. The condition of things abroad is akin to our own. The crisis which commenced in 1873, after a long period of reckless speculation and inflated prices, visited England, Germany, and the Austro-Hungarian empire with severe distress, and has finally gnawed its way into France. The latter country, fortified by the careful, hoarding, non-speculative habits of her people, seemed for a season to have escaped entirely from a tornado which ravaged the greater part of the commercial world. But with the gradual impoverishment of her customers she has been restricted to a narrower market for her products, and compelled to accept lower prices for the diminished quantity. Hence we hear complaints from nearly all parts of that usually prosperous land. Neither England nor Germany has given any considerable signs of a revival of trade, yet I judge from some personal observation, and from the statements of trade journals on both sides of the water, that whatever may be the nominal rate of wages there and here, there are more people out of employment in this country, who are willing to work, than in England and Germany added together. At all events, we have lost our distinction among nations as the country in which there is work and bread for all.

I.

Let us first take a brief survey of the commercial crisis in which we have been wallowing since 1873. Although much has been written on the subject of commercial crises, and their history has been carefully collated by English, French, and German publicists, there is perhaps no department of political economy so obscure and so little understood. Why is it that for some years the whole commercial world is in a state of bounding prosperity, and then suddenly plunges into an abyss of bankruptcy, poverty, and distress, without any perceptible external cause? It is commonly supposed, and is maintained by some economists of note, that waste of capital, such as bad investments in railways, public improvements, wars, etc., are the responsible and true cause of the periodical collapse of trade and industry. These are, indeed, the usual forerunners and accompaniments of the commercial crisis, but they cannot be the cause. A country cannot invest more than its annual surplus in new railways, factories, mines, buildings, etc., nor can it spend more than its annual surplus in war. By annual surplus is meant that part of the annual production which remains after feeding, clothing, and maintaining all the inhabitants.

True, something may be borrowed from abroad for such investments, but the borrowed portion is really an investment of the lending country. Commercial crises makes no distinction between borrowing countries and lending countries. Indeed, they strike the lending countries oftenest, but they strike both impartially. I think it must be admitted as mathematically true, that a country cannot possibly invest in fixed capital, such as new railways, or waste in war, or in any manner whatsoever, more than it produces annually over and above its annual consumption. But if the country should deliberately sink its annual surplus in the sea, such a proceeding would have no tendency to bring on a crisis. It would merely leave the country at the end of the year where it was at the beginning. It would be neither richer nor poorer, nor would there be anything in the transaction to cause banks to suspend, and merchants to fail, and factories to close their doors. If, in addition to its own surplus, it should throw into the sea a stated amount of property borrowed from some other country, the case would be scarcely different. The lending country would lose what it had contributed, and so far as it had based its future business arrangements on a return of the property loaned, it would have planted the seeds of a commercial crisis in its own midst; but no such effect would be produced in the borrowing country, since no expectations could grow out of property deliberately destroyed, and no liabilities could be created upon it beyond the immediate and sole liability of the individual borrowers to the individual lenders. But if the absolute sinking and destruction of our surplus capital would have no tendency to bring on a crisis, *a fortiori*, the more or less bad and unprofitable investment of such capital would not, taken by itself, produce such result.

But if badly invested capital or wasted and sunken capital is treated in the imaginations of men as having been well invested, as being saved and as available to meet future engagements, so that debts are contracted upon the basis of what does not in fact exist, we have one of the principal ingredients of the modern commercial crisis. There have been crises of great severity in countries where there had been no loss of capital in the aggregate either by bad investments or by the waste of war, but merely a temporary craze pervading society, and causing people to put exaggerated and fanciful values upon things, and to make contracts payable in dollars or pounds sterling, with none but imaginary assets. The South Sea bubble, so called in England, the Mississippi bubble in France, and the tulip mania of Holland, were of this nature, consisting in a general agreement among people to consider things worth thousands of pounds, or francs, that were worth only hundreds, or nothing at all. Pounds and francs, however,

are invariable quantities, and after the madness has run a certain course, and the variable quantities — the Mississippi stock, the South Sea stock, and the tulip bulbs — come to be soberly compared with the pounds and francs, bankruptcy and ruin stalk through the market-places. False estimates of the worth of things, as measured by money, are part and parcel of commercial crises; so that we may safely set it down as one of the causes of our present condition, that for some years prior to 1873 we had been marking up our property of various kinds, and agreeing to pay dollars when we really had only half-dollars to pay with. We had created a great many needless railways, and other permanent improvements, it is true; but the difficulty was not that we had built them, but that we considered them worth as many dollars as they cost, and had entered into obligations based npon that mistaken notion. The productive powers of the country were then and are now equal to the task of creating all those improvements, without diminishing the volume of circulating capital or draining its source of supply, and therefore without cramping trade.

What should have caused us to commence marking up prices during a long period prior to 1873 would be an interesting inquiry, but the only answer I can give here is that certain races of men, and particularly the Anglo-Saxon race, are extremely sanguine in the commercial sense, and much given to speculation and to doing business on credit. We know for a fact that they oscillate between periods of high prosperity and extreme depression with a sort of mechanical regularity. They seem to accumulate wealth very rapidly for a season, and then they find themselves entangled in debts which they cannot pay. The sponge of bankruptcy is slowly and painfully applied to the mercantile and manufacturing classes, and then, after more or less suffering, they take a new start for a fresh plunge. I do not think that either the tariff or the currency, vicious as they are, brought on the present crisis, because we have had similar crises when neither the tariff nor the currency was faulty; and other countries enjoying both free trade and metallic money, are now in substantially the same plight as ourselves. These commercial phenomena must be studied inductively by finding what particular facts are common to them in all times and places. Tariffs and currencies are not common to them everywhere. Therefore all we can say is that a bad tariff and a bad currency probably aggravate a crisis when it comes, and may hasten its coming. We know that a good tariff and a good currency will not prevent its coming. It is small satisfaction to recall that the advocates of protection trumpeted the present tariff as the infallible preventive and patent medicine of panics and financial revulsions. Nobody has the hardihood to claim that the present crisis was brought on by the want of a

tariff sufficiently high for the public needs. While the framers and friends of the present tariff, in so far as they claimed for it any virtue in warding off panics and crises, are convicted before the whole people of gross quackery, I do not charge upon them the responsibility of bringing us into our present misery; I shall endeavor to show, however, that the speediest, if not the only way out of it, is to abandon their policy, to strike off the shackles they have imposed upon commerce, to open the door, and give to the unparalleled resources and the unsurpassed skill of this country a fair chance in the markets of the world.

II.

The next point to be considered is the reason, if we can discover it, why the present crisis holds on so long; why the depression deepens and increases instead of wearing itself out, as previous ones have done. It is now four years since pay-day commenced, and since so vast a multitude were found unable to pay. The bankruptcy courts have been grinding six days in every week since September, 1873, and the grist is scarcely diminished in volume. Less than three years sufficed to clear away the wrecks of 1857, and to bring in a season of fair prosperity. The difference, I apprehend, consists in this, that in 1857 we still had a vast, undeveloped country to employ our surplus capital and labor, and likewise a very considerable market for our manufactures abroad. At that time the Mississippi River was the western limit, not of settlement indeed, but of anything that could be called thorough cultivation and improvement, while east of that line there were great gaps in Illinois, Michigan, and Wisconsin, and lesser ones in Indiana, Ohio, and Pennsylvania to be filled up, and as the saying is, "developed," by population, by railways, and all the machinery of civilized life. Here and further westward was to be found remuneration for capital and labor, and both came in abundance as soon as the *débris* of 1857 was gotten out of the way. Since that time we have pushed settlement to the interior of Kansas and Nebraska. Minnesota and Iowa have become populous States. Colorado has become a thrifty community. The continent has been opened by railways. California is, or claims to be, overcrowded with laborers. There are still many gaps to be filled, and perhaps the boundary from which agricultural products can be carried with profit to the seaboard has not been overpassed. But the conditions favorable to rapid recovery in 1857 no longer exist. Remuneration for capital and labor on our own soil no longer abounds in the full measure of former epochs, and although we cannot claim a dense population, it would seem to be as dense as we can find any present employment for. Expansion is one of the necessities of healthy trade, and is peculiarly the present necessity

of American trade. And since it is not to be found in any sufficient measure on our own soil, we must look to the outer world for it.

When the question is asked, Why does not business revive? it is an adequate and perfectly scientific answer to say that our commerce is confined within limits too small for its healthy action. Those departments of industry which have access to foreign markets are fairly remunerative and prosperous. All others are endeavoring to find sustenance and support within the narrow confines of our own population, and are perishing like rats in a cage, where there is full liberty to increase and multiply, but where only a fixed quantity of corn is supplied each day. This figure of speech, so effectively used by Perronet Thompson in the time of the anti-corn law league, is well descriptive of the condition of American manufacturing industry to-day under the fostering care of the protectionists. Mr. Edward Atkinson has shown, in an admirable series of papers, how the tariff has operated to cripple our export trade in cotton goods, and Mr. David A. Wells has given repeated and forcible illustrations of its crushing effect upon other departments of manufacturing industry. The statistician of the New York custom-house, Mr. J. S. Moore, has called attention to the fact that our yearly manufacturing product has risen from $57.25-100 per capita in 1860 to $111 per capita in 1870. That the consuming capacity of the country has risen in no such ratio, is proved by the deathlike silence of two-thirds of our iron furnaces, by the moribund state of our woollen industry, by the break-down of our coal companies, by the distress of nearly all classes of operatives, and by the activity of the sheriff and auctioneer in all our manufacturing centres. That the country was able to use manufactured goods to the amout of $111 per capita in 1870 is true, but it was not able to pay for them, and when the dispensation of credit came to an end, and the tide of surplus rolled back upon the producers, they were smothered in their own honey.

I hold it to be too well established for argument, that the manufacturing capacity of this country, especially in the iron, woollen, and cotton trades, is far in excess of our domestic needs, and that a market must be found abroad for the overplus, or else the existing paralysis and misery will continue indefinitely. Just now we are told that large crops are being harvested in the West, and that when they come forward we shall have better times. Large crops in the West, if fair prices are obtained, will be good for the West—good for the producers, the carriers, and the dealers—and will enable them to increase their purchases of manufactured goods to some extent if they choose to do so; but since the condition of the agricultural classes of the West has not been markedly distressing during the last three or four years, I do not

anticipate any notable *increase* of purchases in that quarter, however favorable the harvest may be, or however steady the foreign demand for our breadstuffs. That our real and pressing need is access to the markets of the great world, is recognized by an increasing number of those who are classed as protectionists. The demand for such an outlet is met with in the press almost daily, and is not infrequently echoed by our statesmen. Not long since the speaker of the House of Representatives addressed a letter to certain citizens of Galveston, Texas, directing their attention to the recondite fact that while the countries south of us on the American continent have a foreign trade amounting to $520,000,000, only $112,000,000 of it comes to the United States, and of this fraction only $37,000,000 is carried in American vessels. Mr. Randall considers this fact discreditable to our enlightenment, and so far I agree with him.

The same subject has been treated in a more elaborate manner by the Secretary of State in an "interview" published in the Philadelphia "Press." The Secretary observes that of our 714 iron furnaces, 478 are out of blast, representing an idle capital of $100,000,000. The pressing need of the country, he says, is a foreign market for the surplus products of our manufactories. But he adds that "what we want is not protection or free trade, but full trade." Since any ideas put forth by so eminent a logician as Mr. Evarts will be spread far and wide, it becomes necessary to note the distinction he draws between free trade and full trade. The latter he considers wholesome, but the former pernicious. Now, in the domain of commerce, protection and restriction are interchangeable terms, meaning exactly the same thing, while free trade signifies the opposite. Consequently the idea which the Secretary has clothed in such politic phraseology is that what we want is not trade without shackles, but plenty of trade with plenty of shackles. What we want in a swift runner is not freedom of limbs, but a high rate of speed with his feet in a sack. Alas, Mr. Evarts, the conditions of full trade are those of free trade—the freer the fuller, and the fuller the freer. You can have a little more foreign trade by taking off a few restrictions, and you can have much more by taking off many restrictions.

The Secretary proceeds to say that he will instruct our diplomatic and consular officers to inquire into the wants of foreign countries, with a view to the development of a market for American products, and that he hopes to do something useful through trade conventions. Let us thankfully accept any information coming through consuls and ministers, which has escaped the notice of merchants, and which may lead to the opening of new markets, but let us not depend upon it for speedy relief. Trade conventions, otherwise called reciprocity treaties,

are doses of free trade taken here and there, and are supposed to be consistent with very pronounced views on the subject of protection. If I understand the views and feelings of free-traders in this country, they are not disposed to quarrel with anybody as to phrases and the names of things, nor to fight over again the battles of the past. While preferring free trade on the large scale, they are willing to take it in parcels, provided public rather than private interests are consulted in the adjustment. I took pains a few years ago to visit Washington and spend some time in the vain effort to secure the ratification of a reciprocity treaty with Canada, which, while advantageous to the United States, and therefore deserving of adoption independently of any other fact, would have been accepted by Canada in lieu of all claims for fishing privileges under the treaty of Washington. I mention this by way of notifying gentlemen of the protectionist bias, that I have no opposition to offer to trade conventions *per se*. A reciprocity treaty was concluded with the Hawaiian Islands last year, where public revenue was sacrificed to private gain in a most objectionable manner, showing how important it is that legislation on the subject of trade should receive its first consideration in the presence of the people, rather than in the private correspondence of the Executive, and the secret sessions of the Senate. But free trade has no objections to offer to commercial treaties in the abstract; on the contrary, welcomes them as tentative steps to a treaty with the whole family of man.

III.

In what way will our foreign trade be promoted by striking off or lowering protective duties? How are markets to be found abroad for the surplus of our manufactories by overhauling the tariff? Since a protecting duty is an obstacle to foreign trade, and has no other design or purpose, the repeal of it is the removal of an impediment like the dredging of a sand-bar which stops up the harbor. Then if there be any commerce in the wide world desiring to come in, it can come, and if there be none, nobody is harmed. If any comes in, something will necessarily go out to pay for it, and since the foreign country will not take greenbacks, it must necessarily take the products of our industry. There is no danger of foreign countries taking more of our railroad bonds in exchange for their goods, nor with money at four per cent. interest at home, is there likely to be any further large export of our national securities. Consequently whatever we buy from abroad we must pay for with our products, our industry, our employment. All this is simple enough. It is equivalent to saying that where you buy you must also sell. The converse is equally true, that where you would sell, there you must also buy. If you would sell large to South

America, you must buy largely from her. The buying will push on the selling, and the selling the buying. If you would sell largely to the world, you must buy largely from the world. There is no mystery here. It is all the A B C of commerce.

As to manufactures in particular, or rather that class of manufactures which are non-exportable by reason of their cost, it is to be observed that protection, which usually begins by imposing duties on a few articles just to give them a start, always enlarges its sphere and takes in other articles, till presently the advantage intended to be given to the first recipients is neutralized, or perhaps more than neutralized, by duties on their tools and materials. Parasites fasten upon them, and smaller ones upon these, according to the well-known ditty, *ad infinitum*. The woollen manufacturer asks for his little bounty and gets it; then the wool grower asks for his; and then the maker of looms and spindles asks for his; and then the compounder of dyestuffs and chemicals asks for his; and then the lumberman, the nail-maker, the coal-miner, the glass-blower, the soap-boiler, and a whole battalion of tramps come along, begging for broken victuals at the expense, more or less, of the woollen manufacturer. No wonder he grows haggard year by year, and finally reaches the state of imbecility where he and his tormenters come together and vow that they will never abandon each other or the system whereby they have collectively turned out so much pauper labor, and lost so much money. He sees the British manufacturer getting his wool, his machinery, his dyestuffs and chemicals, and everything else free of duty, and pouring into the United States no inconsiderable quantity of woollen goods over the top of a seventy per cent. duty. With this frightful spectacle before him, he says to his fellow-members at their annual meeting: "We are almost starved to death now: what *would* become of us without the tariff?" Substantially the same is the coward ejaculation of all the protected classes, although a few, the manufacturing chemists for instance—the quinine, calomel, and castor-oil convention—have expressed their willingness to cease taxing the sick if other trades will cease taxing the chemists. They will consent to a lightening of burdens all around, but not to a special exemption of invalids. I agree with them in the hope that the relief may extend to crippled industries as well as to the patients in our hospitals and sick rooms.

Now, I make the broad assertion, that *this country is too large for protection*. Whatever it may have been in times past,—and while cherishing my own views in that behalf, I shall not seek to prolong or embitter the controversy by holding out any red flag to those who consider our manufacturing development due to the protective sys-

tem,—we have now too much capital, too much skill, too great natural resources, too much labor, and too many idle furnaces and factories to furnish the basis for the longer continuance of this system. In the matter of coal, which is the principal factor of both manufacturing and maritime power, we stand toward Great Britain in the ratio of 37 to 1. That is to say, we have, according to the carèful computations of Professor Rogers, thirty-seven times as much of this powerful and indispensable ingredient of manufacturing prosperity available to our purposes as England has. The facilities for mining and delivering coal exist here in as great perfection as in any other country, and the price of coal is lower in New York than in London, lower in Philadelphia than in Manchester, lower in Pittsburg than in Sheffield. The ores of iron, which may be called the next great element of manufacturing and maritime strength, are found here in such boundless profusion and variety, and so admirably situated with reference to smelting, that the producer is puzzled by the very abundance of the advantages offered to him. Our food-producing powers are so much greater than those of our competitors, that our grain and meat will bear twelve hundred miles of inland transportation and handling, and three thousand miles of water-carriage, and still leave a profit to the grower. As regards cotton, timber, petroleum, salt, copper, zinc, naval stores, and the precious metals, what country, or what section of the earth's surface, furnishes so profuse a display? It would not be far out of the way to say that the United States of America contain greater natural resources available to the hand of man than all Europe combined. What gorgon is it then that forbids us to compete boldly with Europe as a manufacturing power, not only in our own markets, but in the four quarters of the globe?

Perhaps I shall hear some voice piping, from long force of habit, the abused words, "pauper labor of Europe." Well, our resources in the way of pauper labor are quite equal to our other resources, I think, and no whit inferior to those of England. I have not taken the trouble to inquire into the nominal rates of wages in the two countries, because such inquiries lead to no satisfaction. The cost of living, the efficiency of the labor performed, and the nearness of markets, are all elements to be taken into account in determining what wages the manufacturer can pay, or the laborer exact. But on the score of pauper labor, I am sure no great manufacturing country can claim much pre-eminence over us at the present time, and I dismiss the argument drawn from the "pauper labor of Europe" as too pitiful to be dealt with except in the way of sarcasm, and too painful even for that.

Nor can anybody affirm that we are at any disadvantage as regards accumulated capital, with $100,000,000 of capital lying dead in iron

furnaces alone. Surely no capital can be cheaper than that, since the cost of lighting the fires is the only expenditure needed to set up the business. With money at four per cent. interest on government loans, and four and a half to six on mercantile paper, it is safe to assume that it is not want of capital that stands in our way. But the plethora of capital, it may be argued, so unusual, so unheard of in this country, must be a temporary circumstance. I hope so, indeed, and in order that it may be so, I insist that markets must be found for its employment outside the forty millions of our own people, and among the thousand millions of the habitable globe.

It cannot be said that we lack manufacturing skill, and that the clumsiness of our artisans must be supplemented and offset by protecting duties. The testimony of foreign commissions, judges, and experts at the Philadelphia Exposition is nearly unanimous in praise of the dexterity, ingenuity, versatility and economy of our exhibitors. The inventive genius of our people is proverbial, and it may safely be said that no country is doing more to enslave the elements and bid the forces of nature toil for man than ours. "It would be foolish," says the report of the British Commissioner, "not to recognize the fact that at Philadelphia, Great Britain was in the face of *her most powerful rival in manufactures.*"

The report of the Swiss Commissioner is in the nature of a lament over the superiority of our artisans, our machinery, our methods, as compared with those of his own countrymen. I venture to add that no American came away from that stupendous museum of industry with the fear that any other nation surpasses us in manufacturing skill, either native or acquired.

IV.

If, then, we have the natural resources, the capital, and the skill, together with an over-supply of cheap labor, what is it that prevents us from entering into competition as manufacturers with England and Western Europe in any market whatsoever? Why do we not remove the self-created impediment to foreign commerce, misnamed protection? It is only a vote in Congress that is needed to remove it. This is all that is required to dredge the legal sand-bars out of all our harbors. Not a dollar of money is wanted from the national treasury, or elsewhere. On the contrary, much money might be saved by dispensing with protection. Why do we not sweep it off the statute-book, or at all events commence paring it down, with a view to a tariff for revenue only? Many months ago I ventured the opinion * that freedom of trade was one of the main conditions of a revival of business in the

* In the "Fortnightly Review," June, 1876.

United States. I now go further, and say that it is the condition *sine qua non*,—the indispensable necessity, in comparison with which all the currency panaceas going, metallic and non-metallic, are quack medicines and nostrums. Nobody can deprecate more earnestly than myself the evils of an irredeemable currency, but for reasons already stated, I do not think that the currency either brought on the crisis or keeps it on. The worst evil of an irredeemable currency is the ever-present fear that it may be arbitrarily increased in volume; that the blind Cyclops of popular ignorance may in his anguish force an equally blind Congress to multiply bits of paper upon us, under the delusion that the country will then be able to consume more coal and iron and cloth, and hence to pay better wages than before. I hold it to be likewise a delusion, though a harmless one, to suppose that altering our medium of exchange from paper to coin will increase the quantities of things exchanged. We are exhorted to believe that it will restore confidence, and induce capitalists to embark in new enterprises. New enterprises mean, of course, new or further production of things to be sold, used, and consumed. But it happens that capitalists are already producing more of these things than can be sold, used, or consumed, and when any new demand springs up capital makes small difficulty of supplying it on account of the currency. It is most desirable on other grounds that coin payments should be restored, but the expectation which so many indulge that specie resumption will charm away these hard times, is not well founded.

The reason why we do not abandon the doctrine of protection is probably explained by a national trait, which the latest foreign commentator on our character and institutions has pointed out. Dr. Von Holst says that when Americans have once accepted a doctrine as true, they cling to it long after its falsity has been demonstrated. Perhaps we are not the only people of whom this may be said. It was a favorite idea of Jefferson's administration to humble England by laying an embargo on our own commerce. As England sought to cripple and restrict our foreign trade by her orders in council, we thought it would be wise to extinguish it entirely by our own act. This was one of the doctrines accepted as true by our ancestors, and accordingly adhered to long after bankruptcy had ravaged our seaports, and not abandoned till hunger and despair scourged them from it. A protective tariff is a lesser embargo, and it may be that more bankruptcy, more hunger, and new riots will be needed to uproot the deep prejudices which cluster around it. In some quarters pride of opinion is to be overcome; in others the inveterate cowardice which protection engenders stands in the way. Some trades are enabled to monopolize the domestic markets by means of the tariff, and sell their surplus to foreigners at lower

rates than they charge home consumers. Others, by dint of superior *finesse*, have gained advantages over their fellows in the tariff legislation, which they are not willing to exchange for anything they can see in foreign trade, however prosperous. Then there are trades not suited to the country, which have been forced into a dropsical, hydrocephalic growth by enormous duties—trades in which the producer and the smuggler wage a never-ending contest, and where the laborer is most commonly on a strike. All these may be expected to resist any change in a system ruinous to the country and eventually to themselves. Nevertheless the forces of gaunt penury are working for free trade among us, as they did in England before Robert Peel abandoned protection. I hold it historically true, that Great Britain learned the lesson of free trade, not through her head, but through her stomach. Her Adam Smiths and her Huskissons educated the few, but famine was the schoolmaster of the million. The mighty pressure of our resources, our idle capital, our unemployed labor, is bearing down upon the wall erected against foreign trade. It will burst that barrier ere-long, and it is for the protected classes to say whether the work shall be done with their consent and assistance, or in the face of their opposition.

If anybody can show how else our industrial condition is to be improved — how else than by selling our surplus in foreign countries and by consequence taking our pay in the product of foreign countries — let him expound the process. Many hazy devices are offered for our acceptance, but when subjected to the test, how will this plan cause the American people to consume more than they do now, so that the surplus of our mills, mines, and factories shall find a market? they are shown to be visionary and delusive. It may be asked, How will free trade enable foreigners to consume more of our products than they do now? I answer, By furnishing them at less cost, less by the amount of the taxes levied upon them directly and indirectly under the tariff. But if free trade should *not* enable foreigners to buy more of our products, we could not buy more of theirs; therefore no harm would be done. "But there would be an immediate inundation of foreign goods," says some protected manufacturer. Let us not forever argue in a circle. It has already been shown that we have all the conditions requisite for competing successfully with other manufacturing countries. The only point in which we differ from them, is in the multiplicity of taxes and artificial burdens that we impose upon ourselves under the name of protection. Strike off these taxes, remove these burdens, make revenue the sole object of the tariff, then, if there be any industry still alive which cannot hold its own, there will be the best grounds for believing that it is not adapted to the country, that it is an exotic

and a parasite, and so let it perish; we shall be better off without it. If the protected classes cannot assist in the work of tariff reform, if they would rather lie where they are, "till famine and the ague eat them up," the country, I am persuaded, will nevertheless take it up without their help, and without much delay.

The suggestion has been thrown out by interested parties and maintained with considerable force in the lobbies of Congress, that new markets should be opened by subsidies from the national treasury to new railway and canal companies. The construction of these railways and canals, it is alleged, would create a demand for iron, timber, and labor, and "set the wheels of industry in motion." This is one of the half-truths with which impudence commonly arms itself when it goes to Washington to get something it ought not to have. The burning of the Pittsburg depots, cars, round-houses, and machine-shops will create as much demand for iron, timber, and labor, in order to replace what has been destroyed, and will set as many wheels of industry in motion as the building of two hundred miles of new railway. The burning of Chicago, a few years ago, furnished more employment than the whole of the Texas and Pacific railway could supply, even if it were subsidized to the full measure of its projectors' wishes. But as nobody would think of burning up property in order to create a demand for labor, or of engaging in unprofitable and unnecessary work for that end, the argument for subsidies from Congress, based upon the need of helping the suffering and prostrated iron workers, is fatally defective. There are many reasons for refusing to vote such subsidies, but the only one appropriate to be considered here is that the relief ends when the subsidy ends. Some few wheels of industry will revolve as long as the artificial stimulus lasts, and then they will cease to turn, and the silence will be profounder than before. Not so with the remedy which looks to the four quarters of the globe for a market, and which builds up its own demand by offering a market in return to the endless family of man. We offer a self-sustaining remedy which costs not a dollar.

It may be asked, Why is it that Great Britain, which enjoys free trade, is, like ourselves, suffering from severe commercial depression? What reason is there to suppose, looking at her condition, that we should be any better off if we too should adopt free trade? I have already stated that commercial crises come upon countries regardless of their tariffs or their currencies. They are the products of speculation, inflated prices, miscalculation, erroneous comparison of the values of things with the value of money. When they come they upset nearly all business arrangements whatsoever, cause nearly everybody to economize, restrict the demand for commodities to the narrowest

limits, and throw people out of employment. This may happen under a high tariff or a low one, or under no tariff at all. But when it does happen, which country has the better chance for recovery, — the one which is restricted, as much as the law can restrict it, to a home market of forty millions, or the one which is encouraged and accustomed to trade with every human being on earth? It is needless to answer this question on *a priori* grounds. We are already informed officially that English pauperism is decreasing — that it has decreased materially during the past year. Is any one bold enough to say that ours has not increased during the same time? Yet the British Islands, scarcely larger in area than the States of New York and Pennsylvania, and not more richly endowed by nature, though pestered by land monopoly and many crippling old-time prejudices that we know nothing of, sustain a population of thirty-two millions of people — three-fourths that of our entire country. The timidity which protection breeds will naturally exclaim that Great Britain has already monopolized the markets of the world, and that it is of no use for us to contest their possession with her; but with the example of American cotton goods selling at Manchester — an example which protectionists are fond of parading as a vindication of their theories — the public may reasonably conclude that we can compete with her in Asia and South America, or even in Iowa and Minnesota. But the advantages we seek are not merely those of successful competition with other countries in producing the same things which they produce. Still greater benefits are to be obtained by the free exchange of commodities which we can produce at least cost, for those which other countries can produce at least cost — as for instance, the exchange of American cutlery for East Indian jute, or American wagons for South American wool, or American sewing-machines for English tin, or American locomotives for Russian hemp. Upon all or most of this species of trade, the manacles of the tariff have likewise been loaded — whether ignorantly or designedly makes no difference.

In conclusion, I repeat, this country is too large for protection. Its resources, both natural and acquired, are swelling with the pains of a giant against the artificial barriers which now close them in. That they will soon burst their bonds and find their outlet and satisfaction in freedom of trade, either with the help and consent of the protected classes, or spite of their resistance, is my confident expectation.

CUSTOMS LAWS AND THEIR ADMINISTRATION.

Read at Saratoga, September 7, 1877.

BY HENRY D. HYDE, OF BOSTON.

It is not proposed in this paper to discuss the relative merits of different systems for raising money for the use of the government, nor to enter into any consideration of the comparative merits of free trade and protection. But recognizing the fact that the custom-house does, and for a long time will, stand at the gateways of every nation of importance, I purpose to discuss briefly its present administration in our own country, with the hope that thereby a public interest may be awakened to revise the system, and make practical what heretofore has been complicated and inefficient. The custom-house and its administration is the great business institution of the land. Not merely does the foreigner obtain his first impressions of our institutions by coming at once in contact with it; but, more or less directly, it reaches every citizen. If we except the post-office, it is the tangible form of government with which our people are most familiar. The character of the government, its integrity or morality, is here tested and decided upon. The bonds of loyalty and affection, which in a republic should bind every citizen to the government, are here either strengthened or weakened.

In 1789, by the Act of July 4, Congress laid the foundation of our present customs system; and Alexander Hamilton, the first Secretary of the Treasury, gave the law practical operation. At that time it was a temporary expedient to raise money for pressing wants, and had not become a part of the settled policy of the government. The duties collected amounted to only about four millions of dollars annually. It can therefore readily be seen that a system adapted to the collection of four millions, upon a limited number of articles, has become unwieldy and inefficient when used to collect two hundred millions from more than twenty-five hundred different articles, through widely separated Custom-Houses.

By the present tariff we collect duties on about 1,505 different articles specifically enumerated, and on about 1,000 more not separately mentioned, but included in general provisions of law. The duties collected are either specific, ad valorem, or compound; that is, both specific and ad valorem. Of the 1,505 articles previously mentioned, 823 pay ad valorem duties of from 10 to 75 per cent., 541 pay specific duties, and 141 pay compound duties.

The first needed change in the law which it is proposed to consider is that relating to the above classification of duties.

It is of the highest importance that the law fixing the duties should be alike plain to the merchant and to the officer charged with its administration; that the duties should be uniform and definite, and not depend upon the judgment or estimates of officials, especially when there is a large margin for difference of opinion. Again, whenever there is an opportunity for a difference of opinion, there is also an opportunity for fraud; and most of the frauds attempted upon the government have arisen in connection with the estimate of value or damage, or when some imperfect standard of measurement or classification has been used.

When the duties are specific, that is, so much per pound, per gallon, or per yard, it is very easy to determine what is due upon a given importation. The merchant, in making his calculations or selling to arrive, knows definitely the amount to be paid at whatever port the goods may be entered; and the purchaser is alike informed. The objection generally made to specific duties is that they discriminate against low-priced goods, since they require those that cost but a small sum to pay an equal amount of duty with those that cost, perhaps, many times as much; but it is believed that these articles, if any, from which a fair and reasonable specific duty cannot be collected, could better be placed on the free list, rather than that so large a portion of our whole customs system should be encumbered by the collection of ad valorem and compound duties.

Whenever the duties are ad valorem or compound, the importer, if a purchaser, is required in his entry to state the cost or invoice price of the goods, or the market value at the time of exportation in the leading markets of the country from which the goods are exported, whichever is the higher. Of course this provision of law furnishes a great temptation to undervalue the goods in the invoice. The appraiser, if he merely follows the invoice, soon becomes the dupe of the importer; if he seeks to determine the value for himself, he is often incompetent; and the result is a wide difference of value at the same time, for the same goods, at different ports of entry. It thus happens that one importer obtains a great advantage over another; or else the trade learns of the opportunity, and all goods of that class, wherever intended for sale or distribution, are entered through a particular port. By a recent law, certain towns or cities in the interior have been designated as places where goods may be entered and duties paid, being transported in bond from the seaboard. The purpose of this law was, of course, to accommodate local merchants; but recently it appeared that substantially all of a certain class of goods were being

entered at one of these inland custom-houses in the West, for the reason that a local appraiser placed so low a valuation upon the goods that those intended for the eastern markets could bear the expense of transportation both ways, and be sold cheaper than if entered and duties paid at one of the custom-houses on the seaboard. Thus the value of the goods, which should be uniform and certain, fluctuates, to the annoyance and loss of both the government and importers.

Compound duties are specially objectionable, as they embody and include the evils of both the ad valorem and specific systems. If ad valorem duties were abolished, nearly all of the difficulties and embarrassments arising from the ascertainment of value would disappear without special changes of law. If ad valorem duties are to remain, as perhaps they will for the present, there can be no question of the necessity of a change of the law in many particulars. The custom-house, as has been said, is a great business establishment, dealing with enormous values, and touching the industries of the whole world. Originally organized for a limited business, Congress has sought from time to time to enlarge its sphere, without changing its methods to adapt it to the increase of business, or without recognizing the fact that, with a hundred years and the introduction of steam and the telegraph, the business of the world has been thoroughly revolutionized. What would be said if our country refused to recognize the railroad, but insisted upon canal and wagon transportation for all inland freights, awaking only to the knowledge that steel is better than iron for wagon tires?

Take again the difficulty of determining the value of goods which the purchaser in a foreign country seeks to import. As the law now is, he is to pay duties on the cost, provided the market has not advanced at the time of importation; if it has advanced, he must pay upon the market value in the country of export. For example, if the market falls, the cost price is to determine the value. If it advances, and the advance may, from war or some other cause, be very sudden, the market price in a foreign country is to be ascertained; and, if the merchant enters his goods at the one value when he should have entered them at the other value, then the goods are liable to forfeiture.

I have thus far spoken only of the inconsistency of the law when the importer acquires his goods by purchase. If, however, the goods are acquired otherwise than by purchase, the difficulty is greatly increased. Then the law requires the invoice to state two things, — the market value of the goods at the time and the market value at the place when and where the goods were manufactured and obtained. This makes the invoice price, so called. But when the importer seeks

to enter these goods, he must enter them at this invoice price, if that is greater than the market price at the time of exportation in the principal markets of the country of exportation; otherwise, at the last-mentioned market price. An importer of manufactured or consigned goods is therefore obliged first to obtain, for the purpose of making his invoice, the market value of the goods at the time and place of procurement or manufacture; then, for the purpose of making his entry, to obtain the market value at the time of exportation in the principal markets of the country of exportation; and to pay duties on whichever happens to be the higher. If he fails to do this, his goods are liable to seizure and forfeiture. Now, if duties are to be collected on the value of goods, it should be the market value at the time of importation in the country of importation. What would be said of a merchant who should delay a sale until he could ascertain the price or value of his goods by the cumbersome process which is still in use in all our custom-houses?

Take the matter of damage allowance. A vessel bringing goods subject to duty has leaked during the voyage; and the cargo has been more or less damaged, according to the nature and location of it, by salt water. The law provides that the amount of damage shall be first deducted, and the duties collected on the remainder. The government determines the extent of the damage by its own officers. Now, one would suppose that all the government would require the merchant to do would be to notify the proper officer at the port of entry that he is informed that his goods have been damaged by salt water on the voyage, and request that the amount of the same be ascertained and deducted. But instead of such a course, he is obliged, on a prescribed form, to make oath to the extent of the damage, of which he is ignorant, and of which the government knows he is ignorant, or pay duties on the goods without the allowance of damage, however great it may have been.

One of the difficulties often experienced at the custom-house is a want of clear understanding of the law and its practical working by the officials charged with its execution. This often comes from a want of the employment of suitable men; often from the complexity of the laws, and often from the want on the part of the officers of proper instruction in their duties. The government annually expends large sums of money in the employment of what are called Special Agents of the Treasury Department, whose duties have heretofore been for the most part the detection of frauds. Before the repeal of the moiety laws men holding these positions fattened on fraud which it was for their interest not to prevent. The time has now come when for this place there should be employed, not merely men skilled in the detec-

tion of fraud after it has been committed, but men skilled in the customs revenue-laws and their substantial working, and it should be a large part of their duty to visit the officers of the different custom-houses of the land, examine carefully into their administration, prevent as far as possible the commission of fraud, and instruct inexperienced and ignorant officials in the discharge of their duties.

Mention has already been made of a want of uniformity in the appraisal of goods entered at different custom-houses. It should be the duty of special agents, general appraisers, or other skilled officers, to frequently visit the different ports of entry, examine appraisements made, compare them with the appraisement of similar goods at other ports, and thereby secure a uniform appraisement at all ports. Few evils so much need correction in the administration of the custom-houses, and few can be remedied so easily.

When goods are entered, the government retains the whole or a part of them, for so long a time as it may desire, until the value or quantity is ascertained, and then delivers them to the merchant. Now, the government claims the right, even after the goods have gone into consumption, to review and increase the duties. A short time since, an importer of a certain class of goods went to the custom-house in one of our large cities, and carried the gold with him with which to pay the duties. The officials informed him that they were duty free. He replied that he thought not; but duties were declined, and the goods were delivered to him and went into consumption. He continued his importations in this manner for many months. Meanwhile the market value of the goods in this country had greatly declined, the decline corresponding substantially to the rate of duty. One day, in going to the custom-house to enter more of the same kind of goods, he was met with the information that the Secretary of the Treasury had decided that the goods were dutiable; and he accordingly paid the duties on the same. But what was his surprise, a few days after, to receive a letter from the collector, claiming all the duties on the importations which had been passed free; and it was only by making an offer of compromise, and the payment of a sum of money, that he was relieved from the payment of all the duties. The statement of such a case suggests the remedy — that when the collector has once had possession of the goods, and determined the duties, and delivered up the goods, he should after a brief limit of time taken to correct mistakes, be estopped from collecting any further duties unless there be fraud. Otherwise a merchant never knows whether he has made a profit, or a loss, in the importation and sale of goods.

There are some goods which are classified for the purposes of duties, by standards that have long since ceased to be used among the mer-

chants of this country. It is surprising how slow the law is to recognize progress. Take, for example, the matter of sugar, to collect the duty on which, if specific, at so much per pound, nothing could be easier. But Congress many years since required sugars to be first classified by what is known as the Dutch standard, and then the duty to be paid at so much per pound, according to the classification. Now, the Dutch standard is merely one of color. There are placed in vials sugars of different colors, and numbered consecutively. Samples of the sugar to be entered are given to the appraiser; and he compares them with the sugars contained in the vials, and ascertains to what numbered vials they more nearly correspond. As color is a purely arbitrary standard, it was soon discovered that a great saving in duties could be made by applying artificial coloring matter which would in no manner injure the sugars, as it disappears in the process of refining. This practice has been going on for years, has been well known to the trade and to government officials, and yet the Dutch standard is still in use; and it is now reported that it is proposed to seize cargoes of sugar artificially colored, instead of abandoning the use of a worthless standard.

It is doubtful if there is any more cumbersome business operation than the entry of goods at a custom-house; and comparatively few merchants either undertake or know how to make an entry. Suppose we follow the entry of a cargo of a common article, salt for instance, where the ascertainment of the duty is very simple, it being specific. First a blank furnished by the government is filled up with the substantial facts contained in the invoice, and with the invoice is delivered to the foreign entry clerk. Next the importer takes the entry to a deputy collector, and makes oath to it. Then he goes to the impost clerk, who figures the duty and converts the amount of it into American currency. He then takes his papers to the recording clerk for record, who adds to the same a charge of forty cents for the bond, twenty cents for the oath, twenty cents for the permit, and twenty cents for each invoice. Then he goes to the bond clerk, who fills up the bond to an amount double the value of the goods, which bond the importer is required to execute with one or more sureties. Then the papers are taken to the permit clerk, who orders certain goods for examination, and furnishes a permit. Then the merchant goes to the naval officer to have the previous work verified, and then to the cashier for the payment of the duties. Then the cashier stamps the permit as duty paid, when it goes to the deputy collector with the entry. The papers are then compared, and if found correct the entry is liquidated; but this is not done until the weigher's returns have been received and compared with the weights upon the invoice, and is

often long deferred. If the goods are intended for the warehouse, a bond to pay duties is given instead of a penal bond.

Now, all that a merchant should be required to do is to furnish some officer at the custom-house with an invoice bond and entry of his cargo. The government should then promptly compute the amount of duties — a statement of which should be handed the merchant — by the same official who received the invoice and entry. The merchant then would only have to take his statement and money to the cashier, pay the duties, show his statement receipted, which receipted statement should entitle him to a permit. The petty charges should be abolished; and there should also be a limit of time allowed the officials in which to compute duties and deliver goods, and when the settlement is made, and the goods delivered, the transaction should be closed, in the absence of fraud, after allowing a limited period of a few days to correct any mistakes. The law requiring all invoices to be verified by oath should be repealed; for custom-house oaths have become a by-word in a Christian land, and can only be regarded as a solemn mockery, except perhaps the manner of administering them relieves of all solemnity. What would be thought of a law requiring all hotel-keepers and merchants to verify by oath their bills when rendered?

One of the most vexatious provisions of the law is the requirement that "charges," so called, should be added to the invoice; that is, inland freights, the cost of purchasing, putting up, and packing of the goods. These charges include paper boxes in which handkerchiefs, gloves, and many kinds of goods are packed, the failure to include which either subjects the merchants to a fine, or the goods to forfeiture; and forfeitures in the past, to the amount of hundreds of thousands of dollars, have been claimed and sought to be enforced for the omission from invoices of these petty charges.

By the present law it is required that all invoices of merchandise imported from any foreign country shall be made in triplicate, which shall be certified by the resident consul, vice-consul, or commercial agent of the United States. One of the invoices shall then be delivered to the person producing the same, one shall be filed and carefully preserved in the consular office, and one shall be transmitted by the consul to the collector of the port of the United States at which it is proposed to enter the merchandise. The consul is directed by the law to require satisfactory evidence of the truth of the invoices; but in practice the making oath to the invoices, and the payment to the consul of his fees, make the evidence satisfactory. The theory of the law is that consuls will assist the home government; but in fact the importers of the country are required to support the consuls, and submit to a very annoying practice which fetters the business of our own

merchants. A single invoice is all that should be required; and the whole system of consular certificates should be abolished.

This paper has not been prepared with a view of creating any antagonism between the government and the merchants of the country, but rather to call attention to some of the difficulties that attend the administration of the customs revenue-laws, and secure co-operation in finding and applying the remedy. We have cited but few of the many instances that could have been given of imperfect laws and their administration.

The remedy must be furnished by Congress; but the subject is so large and intricate, that Congress and its committees will pass it by as they have in the past, unless greatly assisted by the Treasury Department, the importers, and other citizens of the land. The present time is unusually favorable, as the Treasury Department has already entered upon the work, and the merchants of the land are awakening to the opportunity. Unless the remedy is furnished, honest merchants will gradually abandon the importing business.

With a careful revision of these laws, and of their mode of administration, the custom-house will cease to be a byword, and will become the pride of every good citizen.

THE RELATIONS OF STATE AND MUNICIPAL GOVERNMENTS, AND THE REFORM OF THE LATTER.

A PAPER BY SAMUEL BOWLES, OF SPRINGFIELD, MASS.

Read September 7, 1877.

The American system of government, when organized out of the original independent and incoherent colonies, magnified the State. It consisted first of a strong, intimate, representative State government, dealing closely with all the affairs of society and business, and making itself the full expression and executor of the people's will. There were the towns, with their free democracies, for purely local affairs; but their province in government was narrow, their legislature was the open town-meeting, and their officials the executors of merely local affairs, and but limited depositories of State authority. The general government was a mere federation of the States for the exercise of a few common and outside affairs.

The changes of a century have trenched slowly but seriously from both directions upon the State. The latter has become in too great degree a feeble and flabby affair. The multiplication and growth of cities, the transfer of our populations from moderate collections of farmers and small mechanics and storekeepers into mammoth centres of manufactures and commerce, with the constant tendency to individualize the principle of local self-government, has built up a series of subsidiary representative governments within the State, that have come very much to divide, absorb, and dissipate the power of the State itself. On the other hand, the growth of an intense nationality, in both interest and feeling, and the exigencies of a great civil war, have assailed and reduced the States from the outside.

The real imperialism of our government has come to be in the cities, on the one hand, and in the federation, on the other. Nearly every State has a city or cities more powerful than itself. The State continues to make the general laws, but has so far surrendered the execution of them to the municipality, that, instead of being a coherent whole, it is little more than the loose framework for hundreds of independent municipalities; each with a shade of difference, at least, in its execution of the same laws; each maintaining distinct machinery for doing the same things; and each in a sort of rivalry or race with all its neighbors for outward renown or the local currents of popular favor.

In this extreme of individuality, this cutting up of representative

government into local bits, with its accompanying multiplication of organization and expenditure, the fundamental weakness of our modern municipal system may fairly be said to lie. The common council of a city frequently disposes of more money and greater questions than the legislature of a State; and the mayor of a city containing one-twentieth the inhabitants of the State may, with much more pertinence than did the congressional doorkeeper, boast that he is "a bigger man" than the governor.

Chief among the evils of this intimate subdivision and individuality of our modern representative government, is, that the citizen loses in too close familiarity with them that respect for the laws and their executors which is one of the essentials to continuous good order. It is not desirable that the citizen should lose the consciousness of his full share in and responsibility for the laws, or forget that they are the final, sober expression of the judgment of himself and his fellow-citizens for the common government of them all. But it is equally important that the law should convey to him as well a certain abstract independent power of its own, and that he should not be invited to feel, in every individual experience, that he is himself the law, the police officer, and the magistrate; nor too readily make the police officer and the magistrate feel, that, if they enforce the law upon him now, he will turn them out at the next election. Yet this is precisely what is cultivated by our erection of every town and city and county into a local independency, practically above the State.

This extreme of local independency, encouraged by the reaction from the former strong State government, has found the temptation to excessive indulgence and gross abuse in the recent period of material stimulation and inflated growth. All circumstances seem to have combined at once to produce the worst results, and we have a mountain of municipal debts and a record of municipal waste and extravagance for a sad remembrance and a solemn warning. The rapid growth of cities, the necessity for the comfortable housing and healthy living of these greatly increased populations, the legitimate exactions of the American people of and for themselves, and the rivalries and ambitions of every community, have led on, in a season of vast inflation and heated speculation, to great municipal undertakings, and the attempt, in brief, to outfit every large town or city, within the period of a single generation, with all the conveniences and comforts and luxuries that elsewhere have required centuries to accumulate. The American municipality has within twenty years done more for itself in the way of pavements, water, gas, schools, libraries, public buildings, parks, and railroads, than any European city has been able to provide in centuries. The miraculous results of the Aladdin lamp

fable are not more remarkable than these actual developments and provisions. Such sudden and rapid growth, added to the lowering of public morals, which war, inflated currency, and speculation naturally cultivated, was inevitably accompanied by extravagance, abuse, and corruption.

Thus this has been the era of the development of our municipal system, its powers, its imperfections, and its abuses. To prevent any one person or body doing any wrong, we have engrafted on to municipal government a cunning system of irresponsibility. There was such an ingenious combination of checks and balances and mingling of power, that nobody could be to blame for anything. It took everybody to do anything, and everybody did it, and everybody said it was you and not I, and everybody was right.

Coupled with all these common infirmities in system and popular weakness, was the presence in every city of a large percentage of poor, ignorant, and, to a great extent, vicious voters, mostly of foreign birth, who were at the service of parties and contractors seeking power and jobs. It is upon this class, and the principle of universal suffrage, which makes their existence a dangerous political element, that there is now a common disposition to unload the responsibility of these excesses and abuses. Certainly the extent of this class of voters is an added burden to our American system, and an added responsibility to the American citizen of culture and property. But it may be stated as a general fact, that it was the latter, and not the former, who led in these excesses and abuses, and that the American city, — if it can be found, — whose men of property and knowledge united in an intelligent, watchful, and conservative care of their municipal interests, has nothing now to mourn in the way of bad investments or burdensome debts. Where the tax-payers and the men who can read and write have done their duty, no cause for lamentation or reform can be said to exist.

Many of these evils are passing away with the healthy reaction that has come over the American people. The realization of abuses, and the burden of their consequences, always furnish, in a republic, their abundant cure. We must not expect to maintain good government by patent machinery. The intelligence and the alertness of the citizen in his public duties are the first essential of good government. A wise system can only make his intelligent labor the more easily effective. There can be no system so good as to run well without his aid; there can be no system so bad that his vigilance will not forbid grave abuses under it.

It must be confessed, however, that our systems have come to be bad. The revolution in our populations, the great changes in our

social and business civilization, have developed not the unfitness of our principles of government, but simply the inaptness of much of the machinery by which we carry on the government. There has now begun an almost unconscious reaction back to a strong, intimate, and logical State government, — to the full absorption in the State of all the matters that it professes to control at all; of all that concerns the personal rights and duties of its citizens, — the responsibilities of the State to them and their responsibilities to it. It is in the intelligent progress and organization of this reaction that the best solution of the evils of our municipal governments will probably be found. While at the same time all the mutual relations of the individual and society, all that we undertake to do by and for each other, will be much more simply, economically, and intelligently performed.

Perhaps the formula may be thus broadly stated: That the State, which makes the criminal laws, the school laws, and the charity laws, shall carry them out under a common system throughout its borders, by its own organizations and agencies, and no longer divide these duties with counties or municipalities. It is easy to see, without hesitation, what a gain there would be in symmetry, in cost, in character, and in effectiveness under this rule. The police would all be a State police, operated throughout the whole borders of the State by a single head; removed, by the very principle of its being, from the weaknesses of intimate local and individual relations, and capable, by its organization and discipline, of being moved and massed with effectiveness upon any local emergency. The prisons, being also State prisons, could be maintained upon a common principle of organization as to labor and food and discipline, and their inmates classified with relation to their offences, their age and sex, their viciousness, and their capacity for reform. The almshouses, alike State institutions, would present the same opportunities for organized administration—for economy of support and labor, and for separation for the greatest personal benefits; while the centralized State system would break up the expensive conflicts over local settlements, and increase the motives to self-support and friendly intervention. The schools would take on a higher and more uniform character; there would be less favoritism in the choice of teachers, more thorough supervision, and every way more results for the money invested.

All these, and the like offices of government, being absorbed by the central State power, as their legitimate head and source, there would remain to the municipalities simply the care of the buildings and streets—the fire department, the pavements, the water, the gas, the street railways, and parks. All these concern property alone, having no direct relation to the rights or duties of persons, and might justly,

and without invasion of the cherished American principle of universal suffrage, be left alike to the care and the charge of the owners and occupants. These would include, of course, not only every real estate owner, but every householder, every storekeeper, every renter of a shop or office, and their common interest, as well to protect their property and business as to make their town or city inviting to customers and new residents, would ensure the full and faithful discharge of their undertakings. To this extent, and in this particular only, is it probably possible to limit the suffrage, and to this extent it seems to be alike wise, just, and practicable.

It will naturally be objected, that the proposed absorption of its own powers by the State will make a greatly centralized and possibly dangerous authority. Certainly, under the modern habits of imposing national political divisions upon State affairs, and of subordinating the civil service of the State to the uses of the same national partnership, the objection could not be overstated. This redistribution of power is altogether impracticable unless there is to be a reform in these particulars. But the signs of such reform are abundant, and along with the tendency to aggregate the State is the accompanying disposition to separate its affairs, and especially its civil service, from mere partisanship.

Then, in the new demands of our complex civilization, there must be great centralization of authority somewhere. Practically the choice is between dividing it among the thirty or forty States, or concentrating it altogether upon the Federal Government. It is impossible that it should be long held and wisely exercised by thousands of independent municipalities or the hundred mammoth cities that would lead and control them. The evils from which we would escape in municipal government, and those which are wisely feared in the national government, are sure to increase unless we interpose the concentrated, centralized State authority. Moreover, we only follow in this the wise instinct of our fathers. The authority is no greater than they conferred; its exercise is only more abundant and intimate as our popu lation and interests and exactions have increased.

There will be fears of the settlement of the State into a system of perfunctory bureaucracy. But we may trust to counteract this by the increased publicity and discussion of all affairs in our modern life, as well as through the inevitable popular interest in the great offices of the State, as education and charity and business organization. It might, indeed, be well, as fostering and utilizing this popular interest, to empower the choice by every town or city, by universal suffrage, of local boards of inspection and advice for the schools, the prisons, and the charitable institutions. Such boards, uniting both sexes, would be

a watch, a guide, and a stimulus to all State officials, and help to keep the public well alive to all the details of administration.

Here, it may fairly be urged, is the true development and protection of State rights and State authority. Here, too, the legitimate limitation of independent municipal authority and the cure of the demoralizations which experience has developed under the looser system. Under this plan the State takes its true place as the organ of the people, the expression of their will, the protector of their interests. The governor and his associate ministers of state would hold far more intimate relations with the people, exercise more beneficent influence upon society, and possess, indeed, a greater popular power, than President and Congress. The governorship would rise to a higher dignity and a holier office. It would no longer be a mere holiday service. The conscientious occupant of the place would have neither heart nor time for mere political scheming; there would be something else for him to do than to make pretty speeches at militia musters and cattle-shows, and uneasily wait for a vacancy in the United States Senate. There would be no position in the government of greater influence or nobler honor. The governor and his lieutenants would, indeed, be a perpetual Social Science Congress in the practical exercise of the most beneficent purposes of modern civilized popular government. And the State would take its true place in the federative system, holding it no longer at the mercy of abstract theories and disputing parties, but by virtue of what it had the right to do, because it must do it, and because it did do it.

All this, it should be borne in mind, is far different from the legislative exercise of special authority over municipalities, that has been one of the fatal failures of our recent municipal government experiments. The basis of these suggestions is an invariable system of general legislation, applicable to all municipalities and to the whole people alike, and requiring a strong, intimate, and possibly flexible executive for administration. Many practical difficulties will, of course, present themselves; but as it is not possible to improvise the radical changes, as a whole, these may be trusted to find their solution in the progress of the experimental development of the present tendencies and necessities, which, in nearly all the older States at least, are in the direction that has been outlined. The object of this paper is not so much to lay down a fixed plan for the division of State and municipal authority, as to point out intelligently these present tendencies in a new direction,—which is but back to the example of our fathers,—to show the why and the wherefore of the same, and to stimulate popular thought and effort to the wisest and most practicable rapid movement in it. The direction itself, it is maintained, is in the

interest of logic, of simplicity, of economy, and a safe balancing of the powers of the three organizations of our government, municipal, State, and Federal; and along its path will be found, it is believed, the removal of many present evils, and protection from many apprehended dangers in all of them.

MUNICIPAL ECONOMY.

A PAPER BY DANIEL L. HARRIS, OF SPRINGFIELD, MASS.

Read September 7, 1877.

At the annual meeting for 1876, I discussed at some length the subject of municipal extravagance. The rapid increase in all branches of city expenditure since the war was illustrated by reference to a table then recently compiled from the official records of Springfield, Mass., showing the expenditures in gross and also per capita year by year for each general item of expense from 1845 to 1875. Subsequently it became evident that Springfield did not stand alone in her extravagance, but that nearly all the cities of our land had been alike unfortunate in the administration of their affairs. Since then, Springfield, by the publication of her annual reports, has furnished the material for adding another line to the table, showing the corresponding statistics for 1876.* It appears that from about the year 1861 to the year 1874, while the population of the city had grown from 15,000 up to 30,000, the annual expenditure for schools increased from $21,000 to $127,000; the expenditure for the fire department from $3,000 to $45,000; the expenditure for the pauper department from $3,000 to $29,000; and that the total annual expenditure increased in the same time from $66,000 to $781,000. The same statements put into per capita form show the cost of the schools during this period to have increased from $1.27 per inhabitant in 1861, to $4.20 in 1874; the cost of the fire department to have risen from $0.21 in '60, to $1.55; the cost of the pauper department from $0.17 to $0.95; and the entire annual expenditure from $3.98 in '61 to $25.93 per capita in '74.

An examination of the statistics for the years 1874, '75, and '76, will show that Springfield has now so far succeeded in stemming the tide of extravagance as to have cut down the totals of her annual expenditure from $25.93 per capita in 1874 to $22.76 per capita in 1875, and to $18.46 per capita in 1876. It is anticipated that the results for 1877 will show a further and equally gratifying improvement in the situation.

The completion of the assessors' labors for 1877 enables me to add a part of the corresponding figures for this year to the table, and the exhibit thus made must be gratifying to the tax-payers. The census returns for 1875 gave the population of the city as 31,053, and the assessors estimated the population to have decreased by 1,500 in 1876,

* See Table I., annexed to this paper.

and by 685 more to the present time. Notwithstanding this decrease in population, the tax per capita this year will be only $14.35 against $19.77 in 1876, and $22.21 in 1875. The municipal tax, including the "overlayings," will be only $340,261 this year, against $503,880 in 1876, and $613,825 in 1875. This is a reduction of $163,619 from the municipal tax last year, and $273,564 from the tax in 1875, or about 44.5 per cent. The reduction in the assessors' valuation for the two years has been $8,831,794. The following exhibit shows the population, valuation, and taxation — including municipal, state, and county taxes — for the three years: —

YEARS.	Population.	Valuation.		Taxes.	
		Total.	Per capita.	Total.	Per capita.
1875, . .	31,053	$39,524,570 00	$1,273 00	$689,613 00	$22 21
1876, . .	29,553	35,109,456 00	1,188 00	584,473 00	19 77
1877, . .	28,868	30,692,776 00	1,063 21	414,245 00	14 35

It has been found desirable to extend the analysis of our city expenses into still greater detail, in order to afford the requisite basis for pressing desired reforms. One of the results has been the preparation of a table showing the cost of lighting the streets of Springfield from year to year, since 1860, and a companion table showing the comparative cost of street lighting, in various other cities. For a series of years after 1860, while the lights were extinguished at eleven o'clock and dispensed with altogether in the presence of the full moon, the average annual cost of each light was only about $15; from 1866 to 1872, when the lamps burned till two o'clock, and gas was furnished by contractors at the rate of $3.43 per thousand, the cost of maintaining each light rose to an average of $35 per year; and from 1872 to 1875, when the lamps were burned all night, without regard to the moon, and while the cost of gas had fallen 20 per cent., the annual cost of each light rose to $55. Our street lights are now extinguished at midnight at a cost of about $30 per year, and the people have no desire to see them burn longer, but would be quite reconciled to have them turned off an hour earlier.*

For obvious reasons the department of schools is the most difficult of all to bring down to reasonable expenditure, but Springfield has nevertheless made some progress in this direction. The figures show

* See Tables II. and III.

a reduction of $4,000 in the cost of her schools in 1875, as compared with their cost in 1874, and a further saving of $12,500 in 1876. For 1877 the appropriation contemplates a still further reduction of $20,000, the total improvement in the three years being equal to the difference between $126,731 of actual expenditure in 1874, and the $90,000 appropriated for this year.

A proper consideration of the school requirements for the present year seemed to demand the following series of six tables which have been prepared with much care from official data.* Four of these tables draw comparisons between the expense of the schools of nine different cities of the State of Massachusetts as derived from the latest annual reports. The remaining two tables present careful analyses of the Springfield schools for a series of years, so arranged as to show the marvellous growth of their expenses in detail. The average annual cost of the schools in nine cities of Massachusetts outside of Boston range from $1.79 to $4.40 per inhabitant, Springfield's costing $3.61, or, on the average attendance, from $19.23 to $32.25 per pupil, Springfield's average being $28.44. All these tables may prove useful in similar discussions elsewhere.

School Table No. 1 shows the comparative appropriations for nine of the largest cities in the State, excluding Boston. There are three ways of comparing the amounts appropriated by different cities for schools: *First*, by finding the amount appropriated for each child attending school; and, *second*, by finding the amount appropriated for each child of legal school age; and, *third*, by finding the amount appropriated for schools, per capita, of the population. This table makes all three exhibits. It thus appears that Springfield, in appropriating $3.74 for each inhabitant, exceeded by $1.10 the average appropriation ($2.64) of all the cities in the State, except Boston. This amount ($3.74) is from 94 cents to $1.97 *more* per capita of the population than other cities of about the same size. The fifth column shows the amount appropriated for each child attending school. Here $29.41, for Springfield, is to be compared with $18.78 for the city of Worcester, and $22.41, the average for all the cities (except Boston); being $7 above such average. Had our appropriation for schools for that year corresponded with the average appropriation of the nine cities, it would have been about $88,400, instead of $116,000, or $27,600 less than it actually was. It is also seen that $29.41, the appropriation in Springfield, was from $5 to $10.50 per capita more than the appropriation in other cities of about the same size. The last column shows the amount appropriated by each city for each child between five and fifteen years of age within its limits. Here, $20.46 per child, for

* See Tables pages 158–163.

Springfield, is to be compared with an average amount of $15.33 spent on all the children in the nine cities. On comparing Springfield with its immediate neighbors in the table, it is seen that it appropriated for each child of legal school age in the city, from $3 to $9 more than other cities of about the same size. Springfield is only exceeded by Cambridge in its appropriation for each child of legal school age.

School Table No. 2 compares the expenditure of the cities for schools upon the pupils in actual average attendance, and it also compares school expenses by their amount per capita of the population, for which reference is necessarily had to the census of 1875. The third column shows the cost per pupil in Springfield, for 1876, to have been $28.44, against an average of $25 for the nine cities. In 1875 the cost per pupil for Springfield was $31.07, against an average of $26.54 for the nine cities. The fifth column shows that Springfield spent $3.61 for each inhabitant of the city in 1876, against a general average of $2.94 for all the cities embraced in the table. In the year 1875 Springfield spent $3.95 for each inhabitant of the city, against a general average of $3.04 per capita for all the cities. Compared with the four other cities of about the same population, Springfield spent in 1876 for schools 83 cents per capita beyond the average expenditure of the four cities. When it is borne in mind that a difference of 83 cents per inhabitant for Springfield is equivalent to a difference of about $25,000 in the aggregate expense, and that a difference of $3.44 for Springfield, between her cost per pupil, on average attendance, and the general average ($25), would make a difference of between $13,000 and $14,000, the usefulness of such tables is readily seen.

School Table No. 3 shows the average number of pupils in attendance for each teacher in the above cities to be 34, varying from 30 in Springfield and New Bedford, to 37 in Lowell, Worcester, and Fall River. It is obvious from inspection, that if our 3,944 scholars were taught by 116 teachers, with 34 scholars to each teacher, instead of by 133 teachers, with 30 scholars to each teacher, a saving of 12 per cent., or from $12,000 to $15,000 would be made. The number of teachers required for the Springfield schools does not differ essentially from the average requirement of other cities. An inspection of the table also shows, that we paid $7 more a month, on an average, to our male teachers, and $0.43 more a month to our female teachers, than the average amount paid by other cities. In the $3,000 salary paid our High School principal, Springfield was excelled only by Cambridge, and equalled only by Worcester and Salem. For superintendent we paid $3,500, which exceeds the average payment of

other cities by $700, and, with the exception of Boston, is $500 more than is paid by any other city in the State.

In School Table No. 4, the school expenses of 1875, in each of the nine cities included, are classified and then divided by the average attendance of pupils. The result shows that Springfield exceeded the average expenditure per pupil, for teachers' salaries, $3.47; for salary of superintendent, $0.24; for care and repair of school-houses, $1.54; and on the cost of teachers' supplies and miscellaneous expenses, fell below the average, leaving the total expense $4.53 above the general average. This is equivalent to a difference in the total of between $17,000 and $18,000.

School Tables No. 5 and No. 6, although relating to the cost of Springfield schools alone, illustrate so thoroughly the tendency of the decade from 1865 to increase every detail of school expenditure, that it is hoped no reader will fail to give them a careful examination.

Tables in regard to poor-relief have been printed elsewhere, and were submitted yesterday in the Conference of Charities, by Mr. F. B. Sanborn. They were published some time since, by another person (but in the interest of economy in Springfield), to illustrate the excessive extravagance which has obtained in the administration of the pauper department. Those tables present such an exhibit of the growth and management of pauperism as has scarcely been equalled in the experience of any other American city. One singular development is, that the item of outdoor relief of the city poor, as administered last year, amounted to nearly $20,000 in a city of less than 30,000 inhabitants. I will only add, in passing, that these tables are well arranged, and valuable for general reference, and that they have already been productive of much good in enlightening the community for whose benefit they were prepared.

It is gratifying to note, that while Springfield has made some positive advance in the thorny path of municipal economy, many other cities are also beginning to move in the same direction. Whether their movements are timely remains to be seen. In the case of some of the larger cities there is manifest danger that it begins too late. Open and bold repudiation is not to be looked for as a prominent feature in the municipal programme of the early future, but sheer inability to meet the interest of the enormous debts that rest upon some of the cities will doubtless be the cause of their financial dishonor.

TABLE I.—*Expenditure in various Departments of the Public Service, the resulting Taxation and the Accumulation of Municipal Debt, in Springfield, Mass., from 1845 to 1877, inclusive.* (*Compiled from Official Sources.*)

YEAR.	Population.	Valuation.	Valuation per capita.	Detail of Expenditures.				
				Schools.	New School-houses.	Police Department.	Engine Houses and Fire Department.	Pauper Department and Hospital.
1845, . .	**11,171**	$4,992,797	**$445 15**	$11,591 62	–	–	–	$2,414 14
1850, . .	**11,330**	6,375,453	**562 70**	11,344 15	–	$441 73	–	2,512 24
1855, . .	**13,788**	8,409,870	**609 94**	16,451 22	–	1,124 00	$5,872 52	2,386 02
1860, . .	**15,200**	8,918,280	**586 73**	21,647 08	–	1,259 14	3,200 41	3,025 02
1861, . .	16,567	9,485,580	572 55	20,917 54	–	1,222 52	5,355 55	2,781 06
1862, . .	17,934	9,758,890	544 15	21,960 00	–	1,020 49	8,158 47	3,057 24
1863, . .	19,301	10,956,110	567 64	23,301 61	–	2,889 77	11,028 86	4,272 09
1864, . .	20,668	11,407,920	551 96	29,941 54	$16,307 30	8,297 13	6,297 12	5,074 38
1865, . .	**22,038**	12,792,760	**580 49**	42,759 03	53,969 78	12,347 32	11,959 78	8,044 90
1866, . .	22,971	14,997,020	652 87	54,271 18	59,062 72	11,332 82	11,180 98	10,569 03
1867, . .	23,904	17,869,230	747 54	58,141 88	41,267 84	12,327 80	12,745 35	9,371 45
1868, . .	24,837	20,448,160	823 29	78,182 59	62,270 59	15,351 06	36,864 86	16,718 67
1869, . .	25,770	23,567,180	914 52	80,296 04	34,285 49	14,514 56	17,230 85	24,308 53
1870, . .	**26,703**	24,514,060	**918 02**	80,041 49	12,444 57	15,980 81	19,211 94	20,750 62
1871, . .	27,573	27,551,970	999 23	85,029 49	28,340 00	16,406 88	27,175 72	16,998 57
1872, . .	28,443	33,611,150	1,181 70	99,593 06	43,202 63	26,107 10	28,208 45	20,946 56
1873, . .	29,313	37,440,820	1,277 27	113,465 72	53,095 82	27,925 56	45,488 40	24,907 85
1874, . .	30,183	38,336,778	1,270 14	126,731 55	65,304 01	29,046 63	41,908 55	28,818 63
1875, . .	**31,053**	39,524,570	**1,272 81**	122,760 99	12,902 18	29,523 16	47,313 84	34,861 88
1876, . .	29,553	35,109,456	1,188 01	110,117 56	2,053 88	25,996 03	37,481 14	38,913 22
1877, . .	28,868	30,692,776	1,063 21	–	–	–	–	–

TABLE I.—*Expenditure in various Departments of the Public Service, etc.*—Continued.

YEAR.	DETAIL OF EXPENDITURES—Continued.							Total Municipal Expenses Paid.
	Streets.	Sewers.	Lighting Streets.	Discount and Abatement of Taxes.	Printing and Stationery.	Interest.	Miscellaneous and Contingent.	
1845, . .	$4,070 25	–	–	–	–	$778 16	$5,659 55	$24,513 72
1850, . .	2,757 17	–	–	–	–	1,385 09	4,666 43	23,106 81
1855, . .	17,604 83	–	$1,207 37	–	$1,137 34	6,249 66	17,127 69	69,160 65
1860, . .	9,110 98	$720 48	1,899 80	$4,448 21	1,282 61	7,522 55	18,451 47	72,567 75
1861, . .	6,813 86	–	1,864 20	4,610 34	869 61	8,014 41	13,385 89	65,834 98
1862, . .	8,431 01	–	1,740 53	4,817 95	617 26	8,558 59	12,374 13	70,735 67
1863, . .	12,088 82	5,795 51	2,133 55	6,467 46	981 34	10,397 00	16,281 98	95,637 99
1864, . .	25,460 62	12,439 78	4,901 84	7,473 97	1,165 42	13,590 17	21,303 76	152,253 03
1865, . .	30,952 74	833 10	6,550 24	12,330 92	2,029 45	22,944 81	33,759 28	238,481 35
1866, . .	40,062 72	23,188 33	4,682 36	12,294 94	1,516 18	24,705 25	75,751 27	328,617 78
1867, . .	45,755 73	15,882 65	7,492 39	15,082 26	1,542 51	24,048 71	63,489 24	307,147 81
1868, . .	62,276 77	25,307 82	8,227 73	17,330 88	2,424 61	25,839 58	28,010 49	378,805 65
1869, . .	147,882 00	26,847 67	8,869 75	15,277 33	1,958 61	27,378 27	70,935 87	469,784 97
1870, . .	69,618 36	11,334 47	9,564 86	20,029 94	1,565 35	28,284 41	39,119 25	327,946 07
1871, . .	97,859 39	6,660 31	12,277 56	16,600 52	2,227 21	25,168 86	33,174 22	367,918 73
1872, . .	86,422 26	23,821 02	15,226 96	20,034 52	2,716 26	28,733 91	57,349 45	452,362 18
1873, . .	135,339 25	33,169 02	21,354 73	24,114 13	1,885 30	48,655 76	106,639 16	636,040 70
1874, . .	178,617 07	58,998 85	24,805 39	32,646 00	2,365 35	58,742 76	133,862 65	781,847 44
1875, . .	126,287 37	46,712 00	25,689 79	33,129 24	1,928 19	136,283 96	89,657 63	707,050 23
1876, . .	29,921 00	14,535 54	20,984 91	7,796 41	1,470 86	140,283 68	116,040 19	545,594 42
1877, . .	–	–	–	–	–	–	–	–

TABLE I.—*Expenditure in various Departments of the Public Service, etc.*—Continued.

YEAR.	EXPENDITURES PER CAPITA.												TAXATION.
	Schools.	New School-houses.	Police Department.	Fire Department.	Pauper Department and Hospital.	Streets.	Sewers.	Lighting Streets.	Discount and Abatement of Taxes.	Printing and Stationery.	Interest.	Miscellaneous and Contingent.	Total Expenditures per Capita.	Municipal Tax.
			CTS.					CTS.		CTS.				
1845, . .	$1 02	–	–	–	$0 21	$0 33	–	–	–	–	$0 06	$0 50	$2 12	$22,333 96
1850, . .	1 01	–	4	–	21	25	–	–	–	–	12	41	2 04	22,939 53
1855, . .	1 19	–	8	$0 43	17	1 28	–	8	–	8	45	1 24	5 01	66,816 16
1860, . .	1 42	–	8	21	20	60	$0 05	12	$0 29	9	50	1 21	4 77	67,393 88
1861, . .	1 27	–	8	32	17	41	–	11	28	5	48	81	3 98	68,247 59
1862, . .	1 22	–	8	45	17	47	–	9	27	3	47	69	3 94	70,011 16
1863, . .	1 21	–	15	57	22	62	30	11	33	5	54	84	4 94	77,097 14
1864, . .	1 45	$0 79	40	30	25	1 23	60	24	36	5	66	1 03	7 36	142,882 52
1865, . .	1 94	2 45	56	54	37	1 40	04	30	56	9	1 04	1 53	10 82	143,629 17
1866, . .	2 36	2 57	49	49	46	1 74	1 01	20	54	7	1 07	3 30	14 30	226,741 91
1867, . .	2 43	1 73	52	53	39	1 91	66	33	63	6	1 01	2 65	12 85	227,527 35
1868, . .	3 15	2 51	62	1 49	67	2 51	1 02	33	70	9	1 04	1 12	15 25	247,127 54
1869, . .	3 12	1 33	57	67	95	5 69	1 04	35	60	8	1 07	2 75	18 22	339,671 92
1870, . .	3 00	46	60	72	78	2 61	42	36	75	6	1 06	1 46	12 28	261,859 60
1871, . .	3 08	1 02	59	98	61	3 54	23	44	59	8	99	1 20	13 35	312,799 32
1872, . .	3 50	1 52	92	99	74	3 03	83	53	71	10	1 01	2 02	15 90	393,099 26
1873, . .	3 87	1 81	95	1 55	85	4 63	1 13	73	82	6	1 66	3 63	21 69	529,503 73
1874, . .	4 20	2 16	97	1 39	95	5 92	1 96	83	1 08	7	1 95	4 43	25 93	568,425 45
1875, . .	3 95	41	95	1 52	1 12	4 07	1 50	83	1 07	6	4 39	2 89	22 76	613,825 82
1876, . .	3 73	08	88	1 26	1 32	1 01	49	71	26	5	4 74	3 93	18 46	503,880 65
1877, . .	–	–	–	–	–	–	–	–	–	–	–	–	–	340,261 00

TABLE I.—*Expenditure in various Departments of the Public Service, etc.*—Concluded.

YEAR.	TAXATION—Continued.						Total Municipal Debt.	CLASSIFICATION OF TAX-PAYERS.			
	County Tax.	State Tax.	Aggregate of Municipal, County and State Taxes.	Aggregate per Capita.	Amount of Non-Resident Bank Tax.	Amount of Corporation Tax credited by State.		No. of Persons Assessed for Poll Tax only.	All others.	Total Poll Tax Collected.	Average Am't of Tax per Property-holder.
1845, . .	$4,703 69	$935 25	$27,972 90	**$2 51**	–	–	$8,000 00	2,552	1,900	$2,756 16	$12 69
1850, . .	4,567 97	–	27,507 50	**2 43**	–	–	18,812 38	2,220	1,840	2,775 00	13 10
1855, . .	8,063 63	4,990 50	79,870 29	**5 79**	–	–	120,358 79	2,875	2,100	6,331 60	32 32
1860, . .	8,892 01	2,775 00	79,060 89	**5 20**	–	–	120,700 00	2,462	2,428	3,954 00	29 08
1861, . .	12,477 16	3,069 00	83,793 75	5 05	–	–	124,900 00	–	–	–	–
1862, . .	9,548 85	18,414 00	97,974 01	5 46	–	–	167,600 00	–	–	–	–
1863, . .	8,593 96	24,552 00	120,243 10	6 23	–	–	174,300 00	–	–	–	–
1864, . .	9,568 32	24,552 00	177,002 84	8 56	–	$17,415 93	180,645 00	–	–	–	–
1865, . .	11,428 37	66,975 00	222,032 54	**10 08**	–	21,524 79	244,850 00	3,914	2,785	5,476 00	73 35
1866, . .	11,822 45	42,750 00	281,314 36	12 24	–	19,559 75	347,160 00	–	–	–	–
1867, . .	17,339 56	71,250 00	316,116 91	13 22	–	43,510 93	382,300 00	–	–	–	–
1868, . .	12,610 62	28,500 00	288,238 16	11 60	–	–	409,500 00	–	–	–	–
1869, . .	14,383 96	35,625 00	389,680 88	15 12	$13,851 81	24,078 17	439,500 00	–	–	–	–
1870, . .	15,172 12	35,625 00	312,656 72	**11 71**	6,052 55	31,853 04	407,970 30	4,636	3,426	6,837 00	84 41
1871, . .	15,526 80	35,625 00	363,951 12	13 19	19,761 01	32,185 90	385,110 77	–	–	–	–
1872, . .	20,747 69	38,320 00	452,166 95	15 89	6,489 74	33,619 61	470,261 95	–	–	–	–
1873, . .	42,131 39	43,110 00	614,745 12	20 97	30,286 46	29,936 89	1,142,959 87	–	–	–	–
1874, . .	42,131 39	38,320 00	648,876 84	21 49	35,673 22	37,418 52	1,849,643 77	–	–	–	–
1875, . .	37,467 61	38,320 00	689,613 43	**22 21**	35,619 16	36,022 82	2,120,819 96	5,627	4,255	8,133 00	153 43
1876, . .	40,938 55	39,654 00	584,473 00	19 77	36,534 12	35,792 00	2,013,785 00	5,266	4,558	–	148 76
1877, . .	40,938 00	33,045 00	414,244 55	14 35	28,856 52	–	–	–	–	–	–

TABLE II.—*Expenditures in the Street-lighting Department of Springfield, Mass., in each Fiscal Year since 1861.*

YEAR.	No. of Gas Lights at beginning of Year.	No. of Oil Lights at beginning of Year.	Total Number of Lights.	Details of Expenditures.				Total Expenses, exclusive of new work.	Cost of new work.	Expenses per Light.					Total Expenses per Gas Light.	Total Expenses per Oil Light.	Price per 1,000 feet of Gas to individuals.	Price per 1,000 feet of Gas to the city.
				For Gas Bills.	Oil Bills.	Cleaning, Lighting, &c.	Repairs.			For Gas.	For Oil.	Cleaning and Lighting a Gas Lamp.	Cleaning and Lighting an Oil Lamp.	Repairs.				
1861,[1] .	90	–	90	$953	–	–	–	$1,005	$52	$10 59	–	–	–	–	$11 16	–	$4 00	–
1862,[1] .	93	–	93	837	–	–	–	870	166	9 00	–	–	–	–	9 35	–	3 50	–
1863,[1] .	93	–	93	1,142	–	–	–	1,260	–	12 28	–	–	–	–	13 55	–	3 50	–
1864,[1] .	101	2	103	1,624	–	–	–	2,012	1,306	16 08	–	–	–	–	19 92	–	4 00	–
1865,[1] .	**122**	**16**	**138**	**1,590**	**$115**	**$823**	**$250**	**2,778**	**1,114**	**13 03**	**$7 15**	**$5 73**	**$7 73**	**$1 81**	**20 57**	**$16 69**	**4 50**	–
1866,[2] .	143	16	159	3,094	137	1,078	158	4,467	1,057	24 43	8 53	6 58	8 58	99	32 00	18 10	4 50	$3 43
1867,[2] .	160	19	179	4,021	163	2,408	480	7,072	421	25 13	8 58	13 25	15 25	2 68	41 06	26 51	4 00	3 43
1868,[2] .	167	22	189	4,082	289	2,363	292	7,026	1,202	24 44	13 14	12 27	14 27	1 54	38 25	28 95	4 00	3 43
1869,[2] .	178	25	203	4,931	146	1,780	342	7,199	1,671	27 70	5 84	8 52	10 52	1 68	37 90	18 04	4 00	3 43
1870,[2] .	**216**	**33**	**249**	**5,982**	**146**	**2,033**	**234**	**8,395**	**1,170**	**27 69**	**4 41**	**7 89**	**9 89**	**94**	**36 52**	**15 24**	**4 00**	**3 43**
1871,[2] .	261	41	302	7,047	187	2,093	414	9,741	2,537	27 00	4 56	6 66	8 66	1 37	35 03	14 59	3 50	3 12
1872,[2] .	311	50	361	9,798	301	3,092	325	13,516	1,711	31 50	6 01	8 29	10 29	90	40 69	17 20	3 50	3 12
1873,[3] .	350	51	401	14,593	394	3,316	758	19,061	2,294	41 69	7 72	8 01	10 01	1 89	51 59	19 62	3 30	2 81
1874,[3] .	398	54	452	17,996	321	3,855	714	22,886	1,920	45 22	5 94	8 29	10 29	1 58	55 09	17 81	3 30	2 81
1875,[3] .	**460**	**91**	**551**	**18,397**	**443**	**3,954**	**806**	**23,600**	**2,089**	**39 99**	**4 84**	**6 85**	**8 85**	**1 46**	**48 29**	**15 15**	**3 30**	**2 81**
1876,[4] .	501	114	615	15,256[5]	283	4,353	1,093	20,958	–	30 45	2 82	6 71	8 71	1 77	38 93[6]	13 30	3 00	2 70

[1] Lights burned till eleven o'clock. [2] Lights burned till two o'clock. [3] Lights burned all night without reference to moon.

[4] Lights burned till twelve o'clock only, the last eight months of the year, and about twenty-one nights in a month.

[5] Includes the gas for fourteen months.

[6] A proper deduction being made for the cost of gas for the two additional months, reduces this statement of annual cost to $31.75.

TABLE III.— *Comparative Cost of Lighting the Streets of Fourteen Massachusetts Cities, during the Year 1876; based upon Returns made by the City Clerks. Two Oil Lights are accounted equal to one Gas Light.*

CITIES.	No. of Gas Lights.	No. of Oil Lights.	Whole No. Lights.	Total Expenses.	Expense per Light.	TIME OF EXTINGUISHING, ETC.
Springfield,	501	114	558	$20,985 00*	$37 61	Extinguished at midnight after April 1st.
Cambridge,	675	53	701	23,845 00	34 02	Most of the lights extinguished at midnight.
Holyoke,	67	34	84	2,745 00	33 87	" " " "
Newburyport,	103	177	191	6,085 00	31 86	" " " "
Salem,	393	230	508	15,004 00	29 53	Burned all night twenty nights in a month.
Chelsea,	357	96	405	11,748 00	29 01	Extinguished at midnight.
Worcester,	664	556	942	26,954 00	28 61	Extinguished at midnight.
Newton,	643	331	809	22,072 00	27 28	
Somerville,	292	19	302	8,151 00	27 00	" "
Gloucester,	44	55	71	1,917 00	27 00	Extinguished at 11.30 P. M.
Lawrence,	204	58	233	5,500 00	23 60	Extinguished at midnight.
Lynn,	261	150	336	7,762 00	23 10	" "
Lowell,	648	72	684	16,028 00	23 43	About one-half burn till 11.30, the rest till 3 o'clock.
Aggregate of all except Boston,	4,852	1,945	5,824	$168,796 00	$28 98	None of the above cities burn gas during moonlight nights.
Boston,	9,525	1,833	10,441	$498,014 00	$47 69	Burned all night.

NOTE.— Tables II. and III. are presented here with a view of securing special attention to the results of a thoughtless resolution to burn the street lights without regard to cost.

* Including gas for fourteen months (see Table II.).

TABLE IV.—(School Table No. 1.)—*Showing the Comparative Appropriations for Public Schools in Nine of the Cities of Massachusetts having a Population of more than 25,000, for the Year 1875–6; the data being taken from the last Annual Report of the Board of Education.*

CITIES.	1. Population. 1875.	2. Sum Appropriated for the Sup. of Schools.	3. Appropriated per capita of the Population.	4. Daily Average Attendance of Pupils.	5. Appropriation per Pupil on Ave. Attendance.	6. No. of Children between 5 and 15 years old.	7. Sum App. for each Child between 5 and 15.
Lowell,	49,677	$110,625 00	$2 23	5,116	$21 62	7,344	$15 06
Worcester,	49,265	123,789 00	2 51	6,589	18 78	9,570	12 93
Cambridge,	47,832	181,504 00	3 80	6,527	27 81	8,128	22 33
Fall River,	45,296	86,684 00	1 91	4,554	19 03	8,026	10 80
Lawrence,	34,907	61,714 00	1 77	3,258	18 94	5,648	10 93
Lynn,	32,600	84,922 00	2 60	4,212	20 16	5,836	14 55
SPRINGFIELD,	**31,026**	**116,000 00**	**3 74**	**3,944**	**29 41**	**5,668**	**20 46**
Salem,	25,953	72,659 00	2 80	2,960	24 54	4,688	15 49
New Bedford,	25,871	65,372 00	2 53	3,134	20 86	4,002	16 33
Summary,	342,427	$903,269 00	$2 64	40,294	$22 41	58,910	$15 33

NOTE.—The cities are arranged in the order of their population, and Springfield is printed in bold type for greater convenience in comparing its figures with the general average. The second column shows the amount appropriated for the support of schools, including teachers' salaries, janitors' services, and fuel, to be expended under the supervision of the School Committee, excluding the sums spent by the School-house Agent for repairs, &c.

TABLE V.—(School Table No. 2.)—*Comparing the Total Expenditure for Schools in Nine Cities of Massachusetts, for the Fiscal Year 1876.*

CITIES.	1. Average Attendance of Pupils.	2. Total Expenditure for Schools.	3. Cost per Pupil on Average Attendance.	4. Population, 1875.	5. Expense per capita on Population.
Lowell, . .	5,116	$122,858 00	$24 01	49,677	$2 47
Worcester, . .	6,589	144,500 00	21 93	49,265	2 93
Cambridge, . .	6,527	210,539 00	32 25	47,838	4 40
Fall River, . .	4,554	92,761 00	20 37	45,340	2 04
Lawrence, . .	3,258	62,639 00	19 23	34,907	1 79
Lynn, . . .	4,212	94,150 00	22 35	32,600	2 88
SPRINGFIELD, .	**3,944**	**112,172 00**	**28 44**	**31,053**	**3 61**
Salem, . . .	2,960	82,786 00	27 96	25,955	3 19
New Bedford, .	3,134	85,000 00	27 12	25,876	3 28
Summary, .	40,294	$1,007,405 00	$25 00	342,511	$2 94

NOTE.—This table shows the cost of the schools in the nine largest cities of Massachusetts, *excluding* Boston. The element of average attendance is necessarily taken from the Report of the Board of Education, and the figures are subject to the criticism that they relate to the school year terminating in July, while the expenses are for the financial year ending about the following January. But as the schools of all the cities are treated alike, and the results are comparative only, the objection should have no weight.

TABLE VI.—(School Table No. 3.)—*School Attendance, Number of Teachers, and Salaries paid in Nine Cities of Massachusetts for the School Year 1875–76.*

CITIES.	1. Daily Average Attendance.	2. Number of Male Teachers.	3. Number of Female Teachers.	4. Average No. attending school for each Male Teacher.	5. Average No. attending School for each Female Teacher.	6. Total Number of Teachers.	7. Pupils per Teacher on average attendance.	8. Monthly Average Wages of Male Teachers.	9. Monthly Average Wages of Female Teachers.	10. Salary of High School Principal.	11. Salary of Superintendent.
Lowell,	5,116	14	126	365	41	140	37	$171 44	$57 92	$2,500	$2,300
Worcester,	6,589	19	161	347	41	180	37	169 29	52 20	3,000	3,000
Cambridge,	6,527	13	188	502	35	201	32	255 38	72 32	4,000	3,000
Fall River,	4,554	11	111	414	41	122	37	145 60	51 38	2,800	2,360
Lawrence,	3,258	8	87	407	37	95	34	166 66	53 91	2,500	3,000
Lynn,	4,212	7	119	601	35	126	33	183 74	58 10	2,400	–
SPRINGFIELD,	**3,944**	**10**	**123**	**394**	**32**	**133**	**30**	**189 00**	**57 20**	**3,000**	**3,500**
Salem,	2,960	6	77	493	38	83	36	191 67	57 33	3,000	2,500
New Bedford,	3,134	7	97	448	32	104	30	163 57	50 65	2,000	2,500
Summary,	40,294	95	1,089	424	37	1,184	34	$181 81	$56 77	$2,800	$2,770

NOTE.—The fourth column shows the average number attending school for each male teacher, and the fifth column the average number for each female teacher; 394 scholars for Springfield, for each male teacher, is to be compared with 424, the average, and 32 for each female teacher is to be compared with 37, the average, for the nine cities. In the seventh column it will be seen that the average attendance of all the schools is 34 to one teacher, while the number in Springfield is 30 pupils per teacher; or, say, 88 per cent. of the average.

TABLE VII.—(School Table No. 4.)—*Comparing the School Expenses of Nine Massachusetts Cities during the Fiscal Year 1875.*

CITIES.	DETAILS OF EXPENDITURE.					Total Expenses.	Average Attendance.	EXPENDITURE PER CAPITA ON AVERAGE ATTENDANCE.					Total Expenses.
	Salaries of Teachers.	Salaries of Superintendents.	Care and Repair of School-houses.	Teachers' Supplies, Books, etc.	Miscellaneous Expenses.			Salaries of Teachers.	Salaries of Superintendents.	Care and Repair of School-houses.	Teachers' Supplies, Books, etc.	Miscellaneous Expenses.	
Lowell,	$92,885 57	$2,500 00	$13,492 73	$4,978 98	$9,498 26	$123,355 56	4,932	$18 83	$0 51	$2 74	$1 01	$1 92	$25 01
Worcester,	110,349 52	3,000 00	18,796 83	–	11,212 70	143,355 05	6,204	17 78	48	3 03	–	1 82	23 11
Cambridge,	162,386 69	3,000 00	47,508 93	–	5,927 54	218,823 16	6,527	24 87	46	7 27	–	92	33 52
Fall River,	72,972 53	2,436 00	18,305 90	5,288 15	3,266 38	102,348 96	4,505	16 20	51	4 07	1 17	73	22 71
Lawrence,	52,759 44	3,000 00	13,432 63	2,032 32	416 45	71,640 82	3,446	15 31	87	3 89	58	13	20 78
Lynn,	74,420 56	–	22,340 33	6,685 02	3,174 35	106,620 26	4,298	17 31	–	5 19	1 55	73	24 34
Springfield,	90,668 78	3,500 00	24,918 81	2,042 33	1,423 05	122,552 89	3,944	22 99	88	6 32	52	36	31 07
Salem,	60,933 72	2,624 00	18,155 26	2,493 09	2,987 70	87,193 76	2,960	20 56	88	6 13	84	1 01	29 45
New Bedford,	57,646 27	2,500 00	12,986 99	1,928 81	2,670 91	77,732 98	2,877	20 04	86	4 51	67	94	27 02
Summary,	$775,019 00	$22,560 00	$190,018 41	$25,448 68	$40,577 34	$1,053,623 44	39,693	$19 52	$0 64[1]	$4 78	$0 94[1]	$1 02	$26 54

[1] These two items are the average of the cities represented only.

TABLE VIII.—(School Table No. 5.)—*Showing the Increase, Year by Year, from 1867 to 1876, in Springfield, of the Several Items of Expenditure for Schools.*

ITEMS.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.
DR.										
Day Teachers,	$43,387	$50,176	$51,459	$58,182	$62,850	$73,752	$75,336	$83,289	$87,930	$83,934
Evening-school teachers,	–	–	413	564	410	325	309	968	1,167	806
Truant-school teachers,	450	450	450	518	526	500	500	500	500	500
Drawing-school teachers,	–	–	–	–	292	1,011	600	836	1,283	793
Superintendent's salary,	2,100	2,700	2,200	2,700	3,000	3,000	2,875	2,917	3,500	3,500
School-house agent's salary,	–	395	700	761	700	700	715	800	900	800
Truant officer's salary,	–	–	–	–	–	–	50	200	200	150
Janitors' salaries,	2,953	3,341	3,928	4,377	4,715	5,213	5,671	6,076	6,934	6,475
Fuel,	2,758	5,312	6,441	4,073	4,139	4,386	7,117	7,800	6,759	5,787
Gas,	76	36	69	77	68	125	185	293	497	395
Rent,	221	606	6	193	7	754	694	1,111	–	–
Water,	–	6	7	14	83	7	7	7	1,007	1,007
Printing, &c.,	140	162	111	362	218	302	325	523	489	354
Chicopee, for tuition,	75	55	141	68	120	–	–	322	393	193
Cartage and expressage,	45	93	62	32	31	92	24	51	15	–
Horse hire,	92	186	201	139	86	110	111	107	236	141
Taking school census,	–	–	–	–	–	–	–	–	310	194
Philosophical and chemical,	963	191	18	22	31	245	136	979	27	8
Janitors' supplies,	250	421	1,035	241	720	403	419	615	521	363
Miscellaneous,	129	1,012	391	423	295	526	529	676	348	288
School-house agent's account,	3,718	7,529	7,779	4,028	4,096	5,096	16,761	16,546	6,973	5,221
Books, teachers' supplies, &c.,	790	5,512	4,885	3,267	2,642	3,046	1,097	2,123	2,771	1,263
	$58,142	$78,183	$80,296	$80,041	$85,029	$99,593	$113,466	$126,732	$122,761	$112,172
CR.										
Received of State School Fund,	–	$1,128	$875	$785	$1,261	$946	$899	$897	–	–
of School-house Agent,	$12	–	19	50	14	57	25	58	–	–
of Sup't, for school-books sold,	–	3,637	3,941	2,297	1,444	2,220	315	45	$91	$24
of Tax Collector, for school-books, &c.,	135	99	208	305	420	272	299	111	86	332

TABLE IX.—(School Table No. 6.)—*Comparing the Expenditure, per Pupil, on Average Attendance and Average Belonging of School Children, from 1867 to 1876, in the Schools of Springfield, Mass.*

YEAR.	Average Attendance.	Total Expenditure.	Day and Truant Teachers' Salaries.	Total Expenditure, per Pupil, on Average Attendance.	Cost of Teaching, per Pupil, on Average Attendance.	Average Belonging.	Total Expenditure, per Pupil, on Average Belonging.	Cost of Teaching, per Pupil, on Average Belonging.	YEAR.
1867, . . .	2,928	$58,142 00	$43,837 00	$19 85	$14 97	3,266	$17 83	$13 42	1867
1868, . . .	3,004	78,183 00	50,626 00	26 02	16 85	3,304	23 66	15 32	1868
1869, . . .	3,123	80,296 00	51,909 00	25 71	16 62	3,509	22 88	14 78	1869
1870, . . .	3,407	80,041 00	58,700 00	23 50	17 22	3,822	20 93	15 35	1870
1871, . . .	3,403	85,029 00	63,377 00	24 98	18 62	3,717	22 87	17 04	1871
1872, . . .	3,378	99,593 00	74,252 00	29 48	21 98	3,674	27 11	20 21	1872
1873, . . .	3,585	113,466 00	75,836 00	31 65	21 15	3,900	29 09	19 49	1873
1874, . . .	3,804	126,732 00	83,789 00	33 31	22 02	4,071	31 13	20 58	1874
1875, . . .	3,944	122,761 00	88,430 00	31 12	22 42	4,296	28 57	20 58	1875
1876, . . .	4,183	112,172 00	84,434 00	26 81	20 18	4,481	25 03	18 84	1876

CONSTITUTION, OFFICERS AND MEMBERS

OF THE

AMERICAN SOCIAL SCIENCE ASSOCIATION.

JANUARY 9, 1878.

CONSTITUTION.

I.—This Society shall be called the AMERICAN SOCIAL SCIENCE ASSOCIATION.

II.—Its objects shall be classified in five departments: the first, of Education; the second, of Health; the third, of Trade and Finance; the fourth, of Social Economy; the fifth, of Jurisprudence.

III.—It shall be administered by a President, ten Vice-Presidents, a Treasurer, and a Secretary; an Executive Committee charged with general supervision; five Department Committees, established by the Executive Committee, charged with the supervision of their respective departments; and such local committees as may be established by the Executive Committee at different points, to serve as branch associations. The Executive Committee shall consist of the President, Vice-Presidents, Treasurer, and Secretary, the Chairman and Secretary of each Department Committee, and twenty or more Directors, with power to fill vacancies and to make their own By-Laws. The President, Vice-Presidents, Treasurer, Secretary, and Directors shall be chosen annually by the members of the Association on the second Wednesday of January, and shall hold office till their successors are chosen. The President, or, in his absence, a Vice-President, shall be Chairman of the Executive Committee. The Chairmen of the Department and Local Committees shall be chosen at the pleasure of their respective committees. Whenever a branch association shall be organized and recognized as such by the Executive Committee, its President shall be *ex officio* one of the Directors of the American Association, and, together with the Secretary and Treasurer, shall be entitled to all the privileges of membership in that Association. And whenever a local department shall be organized and recognized as such by the Executive Committee, its Chairman shall become *ex officio* a Director and member of the parent Association.

IV.—Any person may become a member by paying five dollars, and may continue a member by paying annually such further sum as may be fixed at the annual meeting, not exceeding ten dollars. On payment of one hundred dollars, any person may become a life member, exempt from assessments. Honorary and corresponding members may be elected, and exempted from the payment of assessments.

V.—The Executive Committee shall have sole power to call and conduct general meetings, and to publish the transactions and other documents of the Association. The Department Committees shall have power to call and conduct department meetings.

VI.—No amendment of this Constitution shall be made except at an annual meeting, with public notice of the proposed amendments.

OFFICERS AND MEMBERS OF THE ASSOCIATION.

The officers of the Association, elected January 9, 1878, are as follows:—

President.

DAVID AMES WELLS, Norwich, Conn.

Vice-Presidents.

BENJAMIN PEIRCE, Cambridge.
H. C. LEA, Philadelphia.
THEODORE D. WOOLSEY, New Haven.
MARTIN B. ANDERSON, Rochester, N. Y.
J. M. BARNARD, Boston.
J. W. HOYT, Madison, Wis.
ISAAC SHERMAN, New York.
RUFUS KING, Cincinnati.
D. C. GILMAN, Baltimore.
W. H. RUFFNER, Richmond, Va.
W. L. TRENHOLM, Charleston, S. C.

Secretary.

F. B. SANBORN, Concord, Mass.

Treasurer.

GAMALIEL BRADFORD, Boston (5 Pemberton Square).

Directors.

T. C. AMORY, Boston.
J. S. BLATCHFORD, Boston.
E. E. HALE, "
GEORGE T. ANGELL, "
WILLIAM MINOT, Jr., "
MRS. JOHN E. LODGE, "
MRS. S. PARKMAN, "
MRS. C. H. DALL, "
MRS. HENRY WHITMAN, "
WILLIAM WATSON, "
HAMILTON A. HILL, "
NATHAN ALLEN, Lowell.
E. C. GUILD, Waltham.
T. W. HIGGINSON, Newport, R. I.
DORMAN B. EATON, New York.
H. VILLARD, "
ANSON P. STOKES, "
JULIEN T. DAVIES, "
JONAS M. LIBBEY, "
PERRY BELMONT, "
HENRY B. BAKER, Lansing, Mich.
HORACE WHITE, Chicago, Ill.
GEORGE WARD NICHOLS, Cincinnati.
CHARLES I. WALKER, Detroit, Mich.
T. M. POST, St. Louis, Mo.

The above-named persons, with the Chairmen and Secretaries of the five departments, make up a Council or Executive Committee, which meets in Boston on the last Saturday of every month. The department officers are as follows:—

I. *Education.*—Prof. W. T. HARRIS, St. Louis, *Chairman;* GEORGE WARD NICHOLS, Cincinnati, *Secretary.*

II. *Health.*—EDWARD WIGGLESWORTH, Jr., M. D., Boston, *Chairman;* D. F. LINCOLN, M. D., Boston, *Secretary.*

III. *Finance.*—Prof. W. G. SUMNER, *Chairman;* G. BRADFORD, Boston, *Secretary.*

IV. *Social Economy.*—Prof. W. B. ROGERS, Boston, *Chairman;* F. B. SANBORN, Concord, *Secretary.*

V. *Jurisprudence.*—Prof. W. G. HAMMOND, Iowa City, *Chairman;* Prof. FRANCIS WAYLAND, New Haven, *Secretary.*

The Department Committees are as follows:—

I. EDUCATION.

Prof. W. T. Harris, St. Louis, *Chairman.*
George Ward Nichols, Cincinnati, *Secretary.*
Prof. Benjamin Peirce, Cambridge.
John D. Philbrick, Boston.
Charles C. Perkins, Boston.
Mrs. S. Parkman, Boston.
Mrs. Henry Whitman, Boston.
James M. Barnard, Boston.
Justin Winsor, Boston.
Joseph White, Boston.
Prof. B. F. Tweed, Boston.
Prof. Runkle, Boston.
Prof. W. P. Atkinson, Boston.
W. C. Collar, Roxbury, Mass.
D. B. Hagar, Salem, Mass.
Miss A. E. Johnson, Bradford, Mass.
Prof. C. O. Thompson, Worcester, Mass.
H. F. Harrington, New Bedford, Mass.
A. G. Boyden, Bridgewater, Mass.
C. F. P. Bancroft, Andover, Mass.
Prof. L. Clarke Seelye, Northampton, Mass.
Edwin P. Seaver, Cambridge, Mass.
L. R. Williston, Cambridge, Mass.
A. C. Perkins, Exeter, N. H.
Prof. W. F. Dimmock, Quincy, Mass.
F. W. Tilton, Newport, R. I.
Miss Anna C. Brackett, New York.

II. HEALTH.

Edward Wigglesworth, M. D., *Chairman,* Boston.
D. F. Lincoln, M. D., *Secretary,* 8 Beacon Street, Boston.
James M. Barnard, Boston.
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The General Meeting of the Association for 1878 will commence at Cincinnati, Ohio, on Saturday, May 18. On Sunday, May 19, a Sermon on Social Science in its Relations to Religion will be preached before the Association. The sessions will continue until the 24th of May. The Conference of Charities for 1878 will probably assemble in Cincinnati during the General Meeting. Announcements of the Addresses, Papers, etc., will be made hereafter.

JOURNAL

OF

SOCIAL SCIENCE:

CONTAINING THE

TRANSACTIONS OF THE AMERICAN ASSOCIATION.

NUMBER VII.

Containing an Article on:

SEPTEMBER, 1874.

Exemption of Private Property on the Sea from Capture:

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1874.

The Journal of Social Science has been hitherto an occasional publication, appearing at irregular intervals, but usually once a year. During the years 1872–3, only one number was published; in 1874 two have been issued. It is hoped hereafter to publish it semi-annually, and perhaps oftener, so as to furnish in each year a volume of at least 500 pages to the members of the Association, and to those individuals and libraries that may prefer to receive it by subscription. It will be published at the rate of One Dollar for 200 pages, however often it may appear, and subscriptions for the numbers at that rate may be sent either to the publishers, or to the editor (F. B. Sanborn, 5 Pemberton Square, Boston), the Secretary of the Association.

The Journal includes, in the first place, the Transactions of the Association: that is, the proceedings at its meetings, general or special, the papers read at those meetings, and such reports of the discussions as are made; and in the second place, other papers prepared for the Association, or relating to its work. Numbers Six and Seven, for instance, contain nearly all the papers read at the New York Meeting in May, 1874; and also, other papers or extracts from papers relating to the topics treated at that meeting. For the convenience of subscribers, certain topics are grouped together in Number Six; as, for example, those relating to Public Charities and Finance: others, relating to Public Health and Education are grouped in Number Seven. The latter also contains a record of facts and events, at home and abroad, which may be supposed to interest students of Social Science. All such, and particularly members of the Association, are invited to contribute statistics, reports, or any data whatever which can properly find a place in the Journal.

Number Six was published in July, 1874: Number Seven in September, and Number Eight may be expected early in 1875. Number Five was published in October, 1873. The table of contents of Numbers Five and Six is appended. Number Seven contains the papers on Sanitary subjects read at the New York Meeting; the papers of Presidents Woolsey and White, and other important matter. Number Eight will contain the proceedings of the Annual Meeting in October; the reports, papers, and discussions thereat, and some account of the British Social Science Congress at Glasgow.

The Annual Subscription of Membership is $5.00. Remittance may be made to G. Bradford, Treasurer, at the office of the Association, 5 Pemberton Square, Boston.

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